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LIBRARY



QUEEN'S UNIVERSITY  
AT KINGSTON

KINGSTON ONTARIO CANADA







# Queen's University

KINGSTON, CANADA



INCORPORATED BY ROYAL CHARTER IN 1841

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## CALENDAR OF THE FACULTY OF ARTS

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EIGHTY-FIRST SESSION

1921-1922

## CHANGES IN REGULATIONS

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	PAGE
1. Subjects of full Honour matriculation .....	33
2. Mid-year examinations for extra-mural students in half-courses of the first term .....	41
3. Changes in Fees (student activities, extra-mural examinations, Summer School) .....	45
4. Arts Research Fellowships .....	51
5. Conditions under which Preparatory courses may be counted towards a degree .....	55
6. Combined Course for B.A. and B.Sc. ....	70

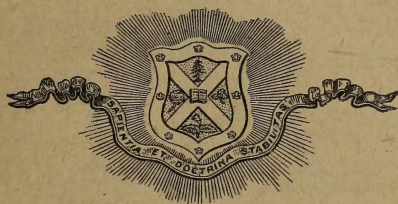
**Queen's University  
Library**

**KINGSTON, ONTARIO**



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## CALENDAR OF THE FACULTY OF ARTS

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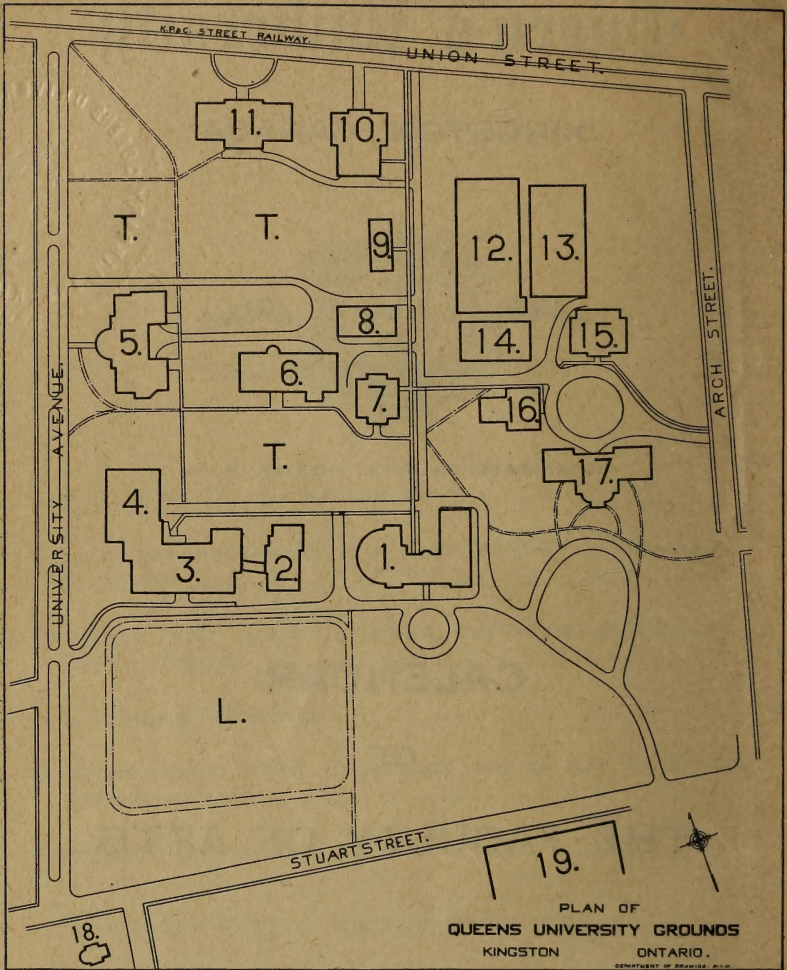
EIGHTY-FIRST SESSION

1921-1922

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KINGSTON  
PRINTED FOR THE UNIVERSITY BY THE JACKSON PRESS  
1921

1921/22



PLAN OF  
QUEENS UNIVERSITY GROUNDS  
KINGSTON ONTARIO.  
DEPARTMENT OF DRAWING, R.C.D.

1, Theological Hall, containing on the first floor the offices of the Registrar and Treasurer, the Biological Laboratories, and the Museum; and on the second floor the Principal's Office, Convocation Hall, and the Library. 2, Cafeteria. 3, Kingston Hall or New Arts Building. 4, Grant Hall. 5, Ontario Hall (Physics, Geology, Mineralogy). 6, Fleming Hall (Electrical Engineering). 7, Carruthers Hall (Civil Engineering). 8, Mining Laboratory or the Mill. 9, Mechanical Laboratory. 10, Nicol Hall (Metallurgy). 11, Gordon Hall (Chemistry). 12, Skating Rink. 13, Curling Rink. 14, Gymnasium. 15, Medical Laboratories. 16, Medical Building. 17, Principal's Residence. 18, Observatory. 19, Kingston General Hospital. T, Tennis Courts. L, Small Athletic Field. The main Athletic Field with the Stadium is one block west of University Avenue.



## TABLE OF CONTENTS

	Page
PLAN OF QUEEN'S UNIVERSITY GROUNDS.....	2
CONTENTS .....	3
ACADEMIC YEAR .....	5
CALENDAR .....	7
TIME-TABLE .....	8
HISTORY OF THE UNIVERSITY .....	10
GOVERNMENT AND ADMINISTRATION .....	13
The Board of Trustees .....	13
The University Council .....	13
The Senate .....	14
The Faculty Boards .....	15
OFFICERS OF ADMINISTRATION .....	16
Chancellor, Principal, Rector, Vice-Principal, Registrar, Deputy Registrar .....	16
The Board of Trustees .....	16
The University Council .....	18
The Senate .....	19
OFFICERS OF INSTRUCTION .....	21
Emeritus Professors .....	21
The Faculty of Arts .....	21
Other Instructors .....	25
OTHER OFFICERS .....	26
EQUIPMENT AND SPECIAL FACILITIES .....	27
The Library .....	27
The Museums .....	27
The Laboratories .....	27
The Observatory .....	28
Facilities for Field Work .....	28
Facilities for Athletics .....	28
GENERAL INFORMATION .....	29
Degrees .....	29
Hoods .....	29
Relation to other Institutions .....	30
Extension Lectures .....	30
Dean of Women .....	31
Expenses .....	31
Boarding Houses .....	31
Physical Welfare of Students .....	31
Attendance at Church .....	32
Registration .....	32
ADMISSION TO THE FACULTY OF ARTS .....	33
Admission by Matriculation .....	33
Admission by Equivalent Examination .....	34
Admission by Special Regulation .....	35
REGULATIONS REGARDING EXTRA-MURAL WORK .....	37
THE SUMMER SCHOOL .....	43
FEES .....	45
SCHOLARSHIPS, PRIZES, AND MEDALS .....	47
Matriculation Scholarships .....	47
Scholarships in Arts .....	47
Special Scholarships .....	49
Prizes .....	51
Medals .....	53

GENERAL REGULATIONS .....	54
General students .....	54
Regulations regarding courses .....	54
Regulations regarding examinations .....	55
COURSES OF STUDY LEADING TO THE DEGREE OF B.A. ....	58
The New System of Studies .....	58
Synopsis of Courses .....	60
Requirements for the Degree of Bachelor of Arts .....	60
Academic Requirements for Teachers' Certificates .....	66
Research Courses in Biology, Biochemistry, and Bacteriology ..	67
Courses in Commerce and Administration .....	68
Combined Course in Arts and Medicine .....	69
Combined Course in Arts and Applied Science .....	70
DETAILS OF COURSES OF INSTRUCTION .....	72
Latin Language and Literature .....	72
Greek Language and Literature .....	76
Semitic Languages and Literature .....	79
Germanic Languages and Literature .....	82
Romance Languages and Literature .....	89
Spanish and Italian Languages and Literature .....	94
English Language and Literature .....	98
History .....	104
Political and Economic Science .....	111
Mental and Moral Philosophy .....	119
Mathematics .....	122
Physics .....	126
Chemistry .....	131
Biology .....	139
Bacteriology .....	145
Geology .....	146
Mineralogy .....	150
GRADUATE COURSES .....	153
Requirements for the degree of Master of Arts .....	153
Requirements for the degree of Ph.D. ....	154
DEGREES, MEDALS, SCHOLARSHIPS, AND PRIZES, 1920 .....	163
INDEX .....	168



## THE ACADEMIC YEAR\*

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THE EIGHTY-FIRST SESSION of the University will begin on Wednesday, September 28th, 1921, at 8 a.m. Convocation will be held on Wednesday, May 10, 1922.

1921

- May 3*—Last day on which extra-mural students may add classes for the summer session without extra fee.
- May 10*—Last day on which extra-mural students may add classes on payment of extra fee.
- May 20*—Written notice due at the Registrar's Office of candidates' intention to compete for Matriculation Scholarships.
- July 4*—Summer School opens.
- July 15*—Last day for receiving applications, accompanied by fee, from extra-mural students for new centres for the Arts Supplemental examinations.
- Aug. 1*—Last day for receiving applications, accompanied by fee, from extra-mural students for the Arts Supplemental examinations, or from intra-mural students writing at outside centres.
- Aug. 12*—Summer School closes.
- Aug. 31*—Last day for receiving applications, accompanied by fee, from intra-mural students for the Arts Supplemental examinations at the University.
- Sept. 6*—Arts Supplemental examinations begin.
- Sept. 20*—Last day of registration for extra-mural students without extra fee.
- Sept. 28*—Classes open in Arts at 8 a.m. Registration begins.
- Sept. 30*—Last day of registration for intra-mural students without extra fee.
- Oct. 7*—Last day of registration for intra-mural and extra-mural students who have not previously obtained from the Faculty permission to register later.
- Dec. 1*—First day upon which extra-mural students may transfer to intra-mural classes.
- Dec. 1*—Last day for receiving applications, accompanied by fee, from extra-mural students for the January examinations.
- Dec. 16*—Christmas holidays begin at 5 p.m.

1922

*Jan. 3*—Classes re-open at 8 a.m.

*Jan. 10*—Mid-session examinations begin.

*Jan. 16*—Last day for receiving applications from candidates for the M. C. Cameron Scholarship in Gaelic.

*Jan. 17*—Second term opens at 8 a.m.

*Feb. 15*—Last day for receiving applications accompanied by fee, from extra-mural students for new centres for the April examinations.

*Mar. 1*—Ash Wednesday: a holiday.

*Mar. 2*—Last day for receiving theses for Ph.D.

*Mar. 2*—Last day for receiving applications, accompanied by fee, from extra-mural students for the April examinations.

*Mar. 30*—Last day for receiving applications and fees for degrees.

*April 1*—Last day for receiving theses for D.Sc. and essays for University Prizes.

*April 14*—Good Friday: a holiday.

*April 19*—Class work closes at 5 p.m.

*April 21*—Examinations begin.

*April 24*—Last day for extra-mural students to add classes for the Summer Session without extra fee.

*May 1*—Last day for extra-mural students to add classes for the Summer Session with extra fee.

*May 8*—Statutory meeting of the Senate for awarding Standing, Prizes, Medals, Honours, and Degrees.

*May 10*—Convocation for conferring Degrees, announcing Honours, and distributing Prizes and Medals.

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, \*The term "Academic Year" used in connection with Regulations and Courses of Study refers to the period extending from October 1 to September 30.



# CALENDAR

## 1921

JANUARY							FEBRUARY							MARCH							APRIL						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
..	..	..	..	..	..	1	..	..	1	2	3	4	5	..	..	1	2	3	4	5	..	..	..	..	..	1	2
2	3	4	5	6	7	8	6	7	8	9	10	11	12	6	7	8	9	10	11	12	3	4	5	6	7	8	9
9	10	11	12	13	14	15	13	14	15	16	17	18	19	13	14	15	16	17	18	19	10	11	12	13	14	15	16
16	17	18	19	20	21	22	20	21	22	23	24	25	26	20	21	22	23	24	25	26	17	18	19	20	21	22	23
23	24	25	26	27	28	29	27	28	..	..	..	..	..	27	28	29	30	31	..	..	24	25	26	27	28	29	30
30	31	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

MAY							JUNE							JULY							AUGUST						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
1	2	3	4	5	6	7	..	..	..	1	2	3	4	..	..	..	..	1	2	..	1	2	3	4	5	6	7
8	9	10	11	12	13	14	5	6	7	8	9	10	11	3	4	5	6	7	8	9	7	8	9	10	11	12	13
15	16	17	18	19	20	21	12	13	14	15	16	17	18	10	11	12	13	14	15	16	14	15	16	17	18	19	20
22	23	24	25	26	27	28	19	20	21	22	23	24	25	17	18	19	20	21	22	23	21	22	23	24	25	26	27
29	30	31	..	..	..	..	26	27	28	29	30	..	..	24	25	26	27	28	29	30	28	29	30	31	..	..	..
..	..	..	..	..	..	..	..	..	..	..	..	..	..	31	..	..	..	..	..	..	..	..	..	..	..	..	..

SEPTEMBER							OCTOBER							NOVEMBER							DECEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
..	..	..	..	1	2	3	..	..	..	..	..	..	1	..	..	1	2	3	4	5	..	..	..	..	1	2	3
4	5	6	7	8	9	10	2	3	4	5	6	7	8	6	7	8	9	10	11	12	4	5	6	7	8	9	10
11	12	13	14	15	16	17	9	10	11	12	13	14	15	13	14	15	16	17	18	19	11	12	13	14	15	16	17
18	19	20	21	22	23	24	16	17	18	19	20	21	22	20	21	22	23	24	25	26	18	19	20	21	22	23	24
25	26	27	28	29	30	..	23	24	25	26	27	28	29	27	28	29	30	..	..	..	25	26	27	28	29	30	31
..	..	..	..	..	..	..	30	31	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

1922

JANUARY							FEBRUARY							MARCH							APRIL						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
1	2	3	4	5	6	7	..	..	..	1	2	3	4	..	..	..	1	2	3	4	..	..	..	..	..	..	1
8	9	10	11	12	13	14	5	6	7	8	9	10	11	5	6	7	8	9	10	11	2	3	4	5	6	7	8
15	16	17	18	19	20	21	12	13	14	15	16	17	18	12	13	14	15	16	17	18	9	10	11	12	13	14	15
22	23	24	25	26	27	28	19	20	21	22	23	24	25	19	20	21	22	23	24	25	16	17	18	19	20	21	22
29	30	31	..	..	..	..	26	27	28	..	..	..	..	26	27	28	29	30	31	..	23	24	25	26	27	28	29
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	30	..	..	..	..	..	..

MAY							JUNE							JULY							AUGUST						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
..	1	2	3	4	5	6	..	..	..	..	1	2	3	..	..	..	..	..	1	..	..	1	2	3	4	5	6
7	8	9	10	11	12	13	4	5	6	7	8	9	10	2	3	4	5	6	7	8	6	7	8	9	10	11	12
14	15	16	17	18	19	20	11	12	13	14	15	16	17	9	10	11	12	13	14	15	13	14	15	16	17	18	19
21	22	23	24	25	26	27	18	19	20	21	22	23	24	16	17	18	19	20	21	22	20	21	22	23	24	25	26
28	29	30	31	..	..	..	25	26	27	28	29	30	..	23	24	25	26	27	28	29	27	28	29	30	31	..	..
..	..	..	..	..	..	..	..	..	..	..	..	..	..	30	31	..	..	..	..	..	..	..	..	..	..	..	..

SEPTEMBER							OCTOBER							NOVEMBER							DECEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
..	..	..	..	1	2	3	1	2	3	4	5	6	7	..	..	..	1	2	3	4	..	..	..	..	1	2	3
3	4	5	6	7	8	9	8	9	10	11	12	13	14	5	6	7	8	9	10	11	3	4	5	6	7	8	9
10	11	12	13	14	15	16	15	16	17	18	19	20	21	12	13	14	15	16	17	18	10	11	12	13	14	15	16
17	18	19	20	21	22	23	22	23	24	25	26	27	28	19	20	21	22	23	24	25	17	18	19	20	21	22	23
24	25	26	27	28	29	30	29	30	31	..	..	..	..	26	27	28	29	30	..	..	24	25	26	27	28	29	30
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	31	..	..	..	..	..	..

# TIME TABLE OF LECTURES

When a Science class has only one or two lecture periods a week, the class number is followed by a designation of the day or days of meeting (M=Monday, Tu=Tuesday, etc.)

Classes held on Mon., Wed. and Fri. at						Classes held on Tues., Thur. and Sat. at			
	8	9	10	11		8	9	10	11
Bacteriology . . . . .				11, M, 22a, W			12b	10a	
Biology . . . . .			24a, 5b	23b, W		10, Tu	12a, Tu	1, Tu, Th	21, Tu, Th
Chemistry . . . . .		1, M, W	M, 21, M, F	21, W, F		18, Th	13b, Tu	2, Tu, Th	
		106b, F	45, M	141b, M, F		45, Th	M, 1, 41, Tu or	M, 21, Tu or	2, Tu, Th
		171a, M, F	106b, F				Th, 9-12	Th, 9-12	M, 21, Tu or
Economics . . . . .	24a, 30b, 42a	34b, 41a	2, 13b, 36a	15b, 17a		10a, 57b	Th, 9-12	71, Tu, Th	Th, 9-12
English . . . . .	10a, 14b	2(A), 38a	6b	18a, 36b		1	75, hf, Tu, Th	75, hf, Tu, Th	121, Tu, Th
French . . . . .	12b, 20a	1	10, 17b	3		1, (Med.)	101, Tu, Th	101, Tu, Th	
Geology . . . . .		2					25a, 52b, 53b	1, 64a, 65b	62a, 63b
German . . . . .	12b, 31a	3a, 21b	13, F	1, 15, W			2(B) 22a, 24b	4a, 20b, 33a	27a, 29b
Greek . . . . .			15, M	19, W			11a, 13a, 14b, 15b	2	5b
Hebrew . . . . .	2		2	23b, 32a		A		10, Tu, Th	15, Tu
History . . . . .				2				B, 25a, 26b	18, Tu, Th
Italian . . . . .		12	13	3, 14a, 15b		1		1, 10a, 11b	11a, 33b
Latin . . . . .		21b, 22a	1 (A)	19a, 20b		16		10a, 11b, 4	A
Mathematics . . . . .	1, 1h, 12a, 14b	17b, 18a		10a, 11b				1(8), 10b, 18a	1, 5a
Mineralogy . . . . .	2, W, F			1, W			20b		2
Philosophy . . . . .	26	2		44a, 44b			13, Tu, Th		3, 7b
Physics . . . . .	A, 11a, M, W		A, 12, W, F	A, 16a, M, W			1		46
			A, 13b, W, F	A, 20b, M, W			A, 2	A, 10, A, 14b, Tu, Th	A, 1, A, 17a, Tu, Th
Spanish . . . . .			2				A		A, 21b, Tu, Th

# TIME TABLE OF LABORATORY WORK

The numbers in parentheses indicate the hours; an asterisk indicates another section on Saturday, 9-12.

	Mon.	Tues.	Wed.	Thur.	Fri.
Bacteriology	10a (2-4) 12b (2-4)		10a (2-4) 12b (2-4)		
Biology	1 (2-4) 2 (2-4)	10 (2-4) 18 (2-4) 22a (2-4) 23b (2-4) 28 (2-4)	1 (2-4) 2 (2-4) 12a (1-5) 28 (2-4)	10 (2-4), 23b (2-4) 13b (2-4), 28 (2-4) 14a (1-5) 18 (2-4) 22a (2-4)	11 (1-5) 21 (2-4)
Chemistry	M.1 (1-4) 31 (1-4) 141b (1-4) 171a (1-4)	41 1-4)*	2 (1-4) 21 (1-4) 45 (Sec. A, 1-4) 71 (Sec. A, 1-4)	1 (1-4), M.1 (2-3) 31 (1-2) 45 (Sec. B, 1-4) 111 hf (1-4) 71b (Sec. B, 2-5) 121 (1-4)*	M.1 (1-4) 101 (1-4) 133 hf. (1-4)*
Geology		14 (1-3) 13 (3-4)		19 (2-3)	
Mineralogy		1 (1-3) 41 (1-4)*	11 (1-4)	19 (2-3)	12 (1-3)
Physics		A.1 (Sec. A, 3-5) A.10 (3-5) A.11a (3-5) A.14b (3-5)	A.1 (Sec. B, 3-5)	A.2 (3-5) A.12 (3-5) A.13b (3-5)	

## HISTORY OF THE UNIVERSITY

---

Queen's University owes its origin to the desire of the Synod of the Presbyterian Church in Canada, in connection with the Church of Scotland, for a ministry trained within the country. As early as 1832 the Provincial Government had been petitioned "to endow without delay an institution, or professorships, for the education and training of young men for the ministry in connection with the Synod." This and other representations failing of their object, steps were taken by the Synod to found a college at Kingston on the lines of the Scottish National Universities. On October 16, 1841, a Royal Charter was issued by Her Majesty Queen Victoria for the establishment of Queen's College, Kingston, and the first classes were opened in March, 1842, with the Rev. Dr. Liddell as Principal. Funds were provided in part by grants from the Presbyterian Church in Scotland and from the Canadian Government, and in part by liberal subscriptions from the friends of the young and growing University. In 1867-68, however, the withdrawal of the Provincial grant, and the failure of the Commercial Bank, almost brought financial disaster. But the crisis was met by the determination of Principal Snodgrass and of other self-denying workers, chief among whom was Professor Mackerras. The country was canvassed for subscriptions, and as a result of the widespread interest aroused, \$113,000 was added to the endowment.

In 1877 Principal Snodgrass was succeeded by the Rev. G. M. Grant, who for a quarter of a century built with brilliant success upon the foundation laid by his predecessors. Under him the University gained rapidly in size and prestige. By 1881 Queen's had a new building, an enlarged staff, and a great increase of students. In 1887, as the result of an effort in commemoration of the Queen's Jubilee, \$250,000 was raised, resulting in further extension, and in the establishment of new professorships.

Principal Grant died in 1902, and was succeeded in the following year by the Very Rev. D. M. Gordon. In 1916, owing to ill-health, Principal Gordon resigned his position, but continued in office until the autumn of 1917, when Rev. R. Bruce Taylor, M.A., D.D., LL.D., was appointed as his successor.

In 1854 the Medical Faculty of Queen's was established. It was re-organized in 1865 as the Royal College of Physicians and Surgeons in affiliation with the University, but in 1891 the original status was



resumed. Excellent facilities for clinical work are provided in the General Hospital, Hotel Dieu, Rockwood Hospital, and the Mowat Memorial Hospital.

Queen's led the way in co-education. As early as 1870 special classes in English and other subjects were formed for women, but Courses leading to a degree were not thrown open to them until 1878-79. In 1880 co-education was extended to the medical course, and in 1883 a separate Women's Medical College was opened and affiliated with Queen's. It was closed, however, in 1894, as similar facilities were offered in Toronto and elsewhere.

The School of Mining was founded in 1893 under an Ontario Charter. For several sessions all its departments were housed in Carruthers Science Hall, which had been erected in 1889, but in view of the rapid growth of the School the Provincial Legislature in 1900 provided for its accommodation two large buildings, Ontario Hall for the Departments of Physics, Geology and Mineralogy and Fleming Hall for the Departments of Civil, Mechanical and Electrical Engineering. More recently the Provincial Government erected Gordon Hall, which is entirely used for the teaching of Chemistry, and, through the generosity of Professor Nicol and other graduates, Nicol Hall has been built to provide class rooms and laboratories for the Department of Mining and Metallurgy. The School of Mining, which since 1893 had been under the control of a separate Board, was in 1916 amalgamated with the University, and now constitutes its Faculty of Applied Science.

In 1907 the Ontario Government established at Queen's a Faculty of Education for the purpose of providing professional training for teachers in the secondary schools of the Province. In 1920, however, the work of the Faculty was discontinued because of the decision of the Government to extend the scope of the Normal Schools and to create in Toronto the Ontario College for Teachers.

There is now on the University Campus a stately group of buildings, comprising the Old Arts Building (now the Theological Building); Carruthers Hall (Civil Engineering); Kingston Hall (New Arts), the gift of the city of Kingston; Grant Hall, erected by the students to the memory of the late Principal Grant; Ontario Hall (Physics, Geology, and Mineralogy); Fleming Hall (Mechanical and Electrical Engineering); Gordon Hall (Chemistry); Nicol Hall (Metallurgy); the Medical Building; the Medical Laboratories Building; the Gymnasium; and the Observatory. The Library, which contains about 85,000 volumes, is in the Old Arts Building. A separate Library Building will be erected at an early date, as the late Chancellor of the University, Dr. James Douglas, donated the generous sum of \$150,000 for this purpose.

Queen's University, though founded by a Church, was dedicated to the nation. As its constituency expanded, its constitution was gradually broadened, until finally in 1912, as the result of an amicable arrangement between the Presbyterian Church and the Trustees of the University, an act was passed by the Dominion Parliament removing the last vestige of denominational control.

The endowment of the University at present amounts to \$1,791,495, of which about \$900,000 was obtained in 1918-19. To this sum the late Chancellor Dr. Douglas contributed \$500,000 and the Carnegie Corporation \$250,000. In recent years the Province of Ontario has steadily increased its grants, and the annual income of the University, derived from all sources, is now almost \$500,000. The registration of students has grown from 665 in 1900 to 2247 in the present session, and Queen's has become nation-wide in its work and influence.

## GOVERNMENT AND ADMINISTRATION

---

The administration of the University is vested in the Board of Trustees, the University Council, the Senate, and the Faculty Boards.

### THE BOARD OF TRUSTEES

The Board of Trustees consists of the Chancellor, the Principal, and the Rector; one representative from each affiliated college; representatives as provided for by the Statutes from the University Council, the Benefactors, the Graduates; and members elected by the Board of Trustees.

The functions of the Board of Trustees are to manage the finances, to possess and care for the property, to procure legislation, to appoint instructors and other officers, and in general to attend to such external matters as do not relate directly to instruction.

### THE UNIVERSITY COUNCIL

The University Council consists of the Chancellor, the Trustees, the members of the Senate, and an equal number of members elected by the Graduates from their own numbers.

The functions of the Council are:

- (1) To elect the Chancellor, except when two or more candidates are nominated, in which case the election is by registered graduates.
- (2) To elect six trustees, two of whom shall retire annually.
- (3) To make by-laws governing the election of the Rector by the registered students, of four trustees by the benefactors, of six trustees by the University Council, and of six trustees by the graduates.
- (4) To discuss all questions relating to the University and its welfare.
- (5) To make representation of its views to the Senate or the Board of Trustees.
- (6) To decide on proposals for affiliation.
- (7) To arrange all matters pertaining to (a) its own meetings and business, (b) the meetings and proceedings of Convocation, (c) the installation of the Chancellor, (d) the fees for memberships, registration and voting.

## THE SENATE

The Senate consists of:

The Principal.

The Vice-Principal.

The Principal of Queen's Theological College.

The Dean of the Faculty of Arts.

The Dean of the Faculty of Medicine.

The Dean of the Faculty of Applied Science.

Three Professors elected by the Faculty of Arts.

Three Professors elected by the Faculty of Applied Science.

Three Professors elected by the Faculty of Medicine.

Two Professors elected by the Faculty of Queen's Theological College.

The Functions of the Senate are:

(1) To determine all matters of an academic character which concern the University as a whole.

(2) To consider and determine all courses of study leading to a degree, including conditions of Matriculation, on recommendation of the respective Faculty Boards; but the Senate shall not embody any changes without having previously presented these to the Faculty.

(3) To recommend to the Board of Trustees the establishment of any additional Faculty, Department, Chair, or Course of Instruction in the University.

(4) To be the medium of communication between the Alma Mater Society and the Governing Bodies.

(5) To determine all regulations regarding the social functions of the students within the University, and regarding the University Library and University Reading Rooms.

(6) To publish the University Calendars.

(7) To conduct Examinations.

(8) To grant Degrees.

(9) To award University Scholarships, Medals, and Prizes.

(10) To enforce the Statutes, Rules, and Ordinances of the University.

(11) And generally, to make such recommendations to the Governing Boards as may be deemed expedient for promoting the interests of the University.



## THE FACULTY BOARDS

The Faculty Boards are constituted as follows:

For the Faculty of Arts and for the Faculty of Applied Science, the Dean, Professors, Associate Professors, Assistant Professors, and Lecturers of each Faculty have power to meet as separate boards, and to administer the affairs of each Faculty under such regulations as the Board of Trustees may prescribe.

For the Faculty of Medicine, the Dean, Professors, Associate Professors, and Assistant Professors have power to meet as a separate board, and to administer the affairs of the Faculty under such regulations as the Board of Trustees may prescribe.

The Principal is *ex-officio* president and a member of each of the Faculty Boards. In his absence from the Arts Faculty, the Vice-Principal shall preside. In his absence from the Medical Faculty, or from the Faculty of Applied Science, the Dean of the Faculty shall preside.

The Functions of the Faculty Boards are:

(1) To recommend to the Senate courses of study leading to a degree, and the conditions of admission.

(2) To decide upon applications for admission or for change of course, subject to the regulations of the Senate.

(3) To submit to the Senate names for both ordinary and honorary degrees.

(4) To arrange the time-table for classes and to edit the Faculty Calendar, subject to the approval of the Senate.

(5) To control registration, and determine the amount of fees and manner of payment, subject to the regulations of the Senate.

(6) To deal with class failures.

(7) To exercise academic supervision over students.

(8) To make such recommendations to the Senate as may be deemed expedient for promoting the efficiency of the University.

(9) To award Faculty Scholarships, Medals, and Prizes.

(10) To appoint such sessional assistants, fellows, tutors, and demonstrators as shall be needed to give instruction in the subjects taught by the Faculty.

(11) To pass such regulations and by-laws as may be necessary for the exercise of the functions of the Faculty.

## OFFICERS OF ADMINISTRATION

---

### CHANCELLOR

E. W. BEATTY, K.C.

### PRINCIPAL AND VICE-CHANCELLOR

R. BRUCE TAYLOR, M.A., D.D., LL.D.

### PRINCIPAL EMERITUS

VERY REV. D. M. GORDON, D.D., LL.D., C.M.G.

### RECTOR

A. E. ROSS, B.A., M.D., LL.D., C.M.G.

### VICE-PRINCIPAL

JOHN WATSON, M.A., LL.D., D.D., D.Litt.

### REGISTRAR AND TREASURER

W. E. McNEILL, M.A., Ph.D.

### DEPUTY REGISTRAR

ALICE KING

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## THE BOARD OF TRUSTEES

---

### *Chairman*

W. F. NICKLE, B.A., K.C.

### *Secretary*

W. E. McNEILL, M.A., Ph.D.

---

### Ex-officio Members

E. W. BEATTY, K.C. ....	Chancellor
R. BRUCE TAYLOR, M.A., D.D., LL.D. ....	Principal
A. E. ROSS, B.A., M.D., LL.D., C.M.G. ....	Rector

### Elective Members

#### *Retire 1921*

H. A. CALVIN, ESQ. <sup>2</sup> .....	Toronto
A. T. DRUMMOND, B.A., LL.D. <sup>6</sup> .....	Toronto

PRINCIPAL S. W. DYDE, M.A., D.D. <sup>5</sup>	Kingston
VERY REV. D. M. GORDON, D.D., LL.D., C.M.G. <sup>2</sup>	Kingston
JUDGE H. A. LAVELL, B.A. <sup>3</sup>	Kingston
JAMES A. MINNES, ESQ. <sup>1</sup>	Kingston
H. M. MOWAT, B.A., LL.B., K.C., M.P. <sup>1</sup>	Toronto
VERY REV. M. MACGILLIVRAY, M.A., D.D. <sup>6</sup>	Kingston
R. A. STAPELLS, ESQ. <sup>6</sup>	Toronto
SIR J. S. WILLISON, LL.D. <sup>3</sup>	Toronto

*Retire 1922*

HAMILTON CASSELS, B.A., LL.D., K.C. <sup>6</sup>	Toronto
J. M. FARRELL, B.A. <sup>3</sup>	Kingston
ANDREW HAYDON, M.A., K.C. <sup>6</sup>	Ottawa
G. F. HENDERSON, B.A., K.C. <sup>2</sup>	Ottawa
ALD. R. E. KENT <sup>4</sup>	Kingston
ALEXANDER LONGWELL, B.A., B.Sc. <sup>1</sup>	Toronto
D. M. MCINTYRE, B.A., K.C. <sup>1</sup>	Toronto
W. G. MILLER, LL.D. <sup>4</sup>	Toronto
E. R. PEACOCK, M.A. <sup>6</sup>	London, Eng.
MISS EDITH RAYSIDE, B.A. <sup>3</sup>	Ottawa

*Retires 1923*

T. B. CALDWELL, ESQ. <sup>4</sup>	Lanark
REV. D. R. DRUMMOND, M.A., D.D. <sup>6</sup>	Hamilton
A. C. HARDY, ESQ. <sup>6</sup>	Brockville
J. G. MACPHAIL, B.A., B.Sc. <sup>3</sup>	Ottawa
W. F. NICKLE, B.A., K.C. <sup>1</sup>	Kingston
W. H. RANKIN, M.D. <sup>1</sup>	Brooklyn, N.Y.
A. SHORTT, M.A., LL.D., C.M.G. <sup>3</sup>	Ottawa
J. L. WHITING, K.C., <sup>6</sup>	Kingston

*Retire 1924*

R. CRAWFORD, B.A. <sup>4</sup>	Kingston
VERY REV. W. T. HERRIDGE, D.D. <sup>6</sup>	Ottawa
HON. JUSTICE W. A. LOGIE, M.A., LL.B. <sup>6</sup>	Toronto
REV. G. M. MILLIGAN, D.D., LL.D. <sup>6</sup>	Toronto
M. J. O'BRIEN, ESQ. <sup>4</sup>	Renfrew

<sup>1</sup>Elected by the University Council.<sup>2</sup>Elected by the Benefactors.<sup>3</sup>Elected by the Graduates.<sup>4</sup>Appointed to represent the Faculty of Applied Science.<sup>5</sup>Elected by the Faculty of Queen's Theological College.<sup>6</sup>Elected by the Board of Trustees from among its own members.

## THE UNIVERSITY COUNCIL

*Registrar*

J. M. FARRELL, B.A.

## Ex-officio Members

THE CHANCELLOR

THE PRINCIPAL

THE MEMBERS OF THE BOARD OF TRUSTEES

THE MEMBERS OF THE SENATE

## Elective Members

*Retire 1922*

R. W. BROCK, M.A. ....	Vancouver, B.C.
MRS. JOHN COOPER, B.A. ....	Toronto
R. H. COWLEY, M.A. ....	Toronto
JUDGE E. B. FRALECK, B.A. ....	Belleville
REV. D. MCTAVISH, M.A., D.Sc. ....	Toronto
REV. W. W. PECK, M.A., LL.B. ....	Kamloops, B.C.
W. H. RANKIN, M.D. ....	Brooklyn, N.Y.

*Retire 1923*

REV. J. D. BOYD, B.A. ....	Kingston
REV. N. M. LECKIE, B.A., B.D. ....	Galt
W. S. MORDEN, B.A., LL.D. ....	Toronto
MRS. J. MACGILLIVRAY, M.A. ....	Kingston
F. J. MCCAMMON, B.A., M.D. ....	Brooklyn, N.Y.
D. M. MCINTYRE, M.A., K.C. ....	Toronto
REV. J. H. TURNBULL, M.A. ....	Ottawa
J. B. TURNER, B.A. ....	Hamilton

*Retire 1924*

ALEX. H. BEATON, B.A. ....	Toronto
E. L. BRUCE, B.A., B.Sc., Ph.D. ....	Ottawa
REV. EBER CRUMMY, B.Sc., D.D. ....	Winnipeg, Man.
A. B. CUNNINGHAM, B.A. ....	Kingston
J. A. MINNES, ESQ. ....	Kingston
R. S. MINNES, M.A., M.D. ....	Ottawa
J. J. MACLENNAN, B.A. ....	Toronto
MISS MARION REDDEN, B.A. ....	Kingston



*Retire 1925*

REV. J. A. DONNELL, M.A. ....	Haileybury
JOHN DONNELLY, E.M. ....	Kingston
W. C. DOWSLEY, M.A. ....	Brockville
MRS. H A. LAYELL, B.A. ....	Kingston
H. M. MOWAT, B.A., LL.B., K.C., M.P. ....	Toronto
MRS. ETTA NEWLANDS, M.A. ....	Kingston
F. J. POPE, M.A., Ph.D. ....	New York
REV. JAS. WALLACE, M.A., M.D. ....	Renfrew

*Retire 1926*

H. A. CALVIN, Esq. ....	Toronto
E. T. CORKILL, B.Sc., M.E. ....	Copper Cliff
JUDGE A. G. FARRELL, B.A. ....	Toronto
W. L. GRANT, M.A. ....	Toronto
C. F. HAMILTON, M.A. ....	Ottawa
ALEX. LONGWELL, B.A., B.Sc. ....	Toronto
REV. J. W. MCINTOSH, M.A. ....	Ottawa
MISS EDNA POOLE, B.A. ....	Toronto

*Retire 1927*

REV. JAMES BINNIE, M.A., B.D. ....	Parry Sound
H. W. BRYAN, M.A. ....	Renfrew
D. D. CALVIN, B.A. ....	Toronto
T. H. FARRELL, M.A., M.D. ....	Utica, N.Y.
A. HAYDON, M.A., LL.B. ....	Ottawa
FRANCIS KING, M.A. ....	Kingston
D. H. LAIRD, K.C. ....	Winnipeg
D. A. MCARTHUR, M.A. ....	London
W. F. NICKLE, B.A., K.C. ....	Kingston
MISS VICTORIA REID, B.A., M.D. ....	Toronto

---

**THE SENATE**
**Ex-officio Members**

R. BRUCE TAYLOR, M.A., D.D., LL.D. ....	Principal
JOHN WATSON, M.A., LL.D., D.D., D.Litt. ....	Vice-Principal
OSCAR D. SKELTON, M.A., Ph.D. ....	Dean of the Faculty of Arts
ARTHUR L. CLARK, B.Sc., Ph.D. ....	Dean of the Faculty of Applied Science
J. C. CONNELL, M.A., M.D. ....	Dean of the Faculty of Medicine
REV. S. W. DYDE, M.A., D.Sc. ....	Principal of Queen's Theological College

**Elective Members***The Faculty of Arts*

P. G. C. CAMPBELL, M.A.....	Retires 1922
C. F. GUMMER, M.A.....	Retires 1923
J. L. MORISON, M.A., D.Litt.....	Retires 1924

*The Faculty of Applied Science*

L. F. GOODWIN, A.C.G.I., Ph.D.....	Retires 1922
A. MACPHAIL, B.Sc., D.S.O., C.M.G.....	Retires 1923
W. P. WILGAR, B.Sc. ....	Retires 1924

*The Faculty of Medicine*

E. C. D. MACCALLUM, M.D.....	Retires 1922
J. F. SPARKS, B.A., M.D.....	Retires 1922
G. SPENCER MELVIN, M.D. ....	Retires 1922

*The Faculty of Queen's Theological College*

REV. W. G. JORDAN, B.A., D.D.....	Retires 1921
REV. WILLIAM MORGAN, M.A., D.D.....	Retires 1922

## OFFICERS OF INSTRUCTION

---

### I.—EMERITUS PROFESSORS

- REV. GEORGE D. FERGUSON, B.A., LL.D.,  
*Emeritus Professor of History,*  
 125 Bagot Street.
- D. H. MARSHALL, M.A., F.R.S.E.,  
*Emeritus Professor of Physics,*  
 Elm Tree House, Union Street.
- REV. JAMES FOWLER, M.A., F.R.S.C.,  
*Emeritus Professor of Botany,*  
 121 Union Street.
- WILLIAM NICOL, M.A.,  
*Emeritus Professor of Mineralogy,*  
 203 Albert Street.
- JAMES CAPPON, M.A., LL.D., F.R.S.C.,  
*Emeritus Professor of English.*  
 26 Barrie Street.
- A. P. KNIGHT, M.A., M.D., F.R.S.C.,  
*Emeritus Professor of Physiology.*  
 Alice Street.

### II.—THE FACULTY OF ARTS

- JOHN WATSON, M.A. (Glasgow), LL.D. (Glasgow, Toronto), D.D. (Knox),  
 D.Litt. (Michigan),  
*The John and Ella G. Charlton Professor of Moral  
 Philosophy,*  
 96 Bagot Street.
- OSCAR D. SKELTON, M.A. (Queen's), Ph.D. (Chicago), F.R.S.C.,  
*The Sir John A. Macdonald Professor of Political  
 and Economic Science and Dean of the Faculty of Arts,*  
 138 Albert Street.
- A. L. CLARK, B.Sc. (W.P.I.), Ph.D. (Clark), F.R.S.C.,  
*Professor of Physics and Dean of the Faculty of Applied  
 Science.*  
 200 Albert Street.
- J. MACGILLIVRAY, B.A. (Toronto), Ph.D. (Leipsic),  
*Professor of German Language and Literature,*  
 96 Albert Street.



- REV. W. G. JORDAN, B.A. (London), D.D. (Queen's),  
*Professor of Semitic Languages and Literature*,  
 116 Barrie Street.
- P. G. C. CAMPBELL, M.A. (Oxon),  
*Professor of Romance Languages and Literature*,  
 University Grounds
- T. CALLANDER, M.A. (Aberdeen, Oxon),  
*Professor of Greek Language and Literature*,  
 148 Barrie Street.
- W. T. MACCLEMENT, M.A. (Queen's), D.Sc. (Armour Institute),  
*The John Roberts Allan Professor of Biology*,  
 University Grounds.
- J. L. MORISON, M.A., D. Litt. (Glasgow), F. R. Hist. S.,  
*Professor of History, and Douglas Professor of  
 Colonial History*,  
 12 Alwington Avenue.
- M. B. BAKER, B.A., B.Sc. (Queen's), F.G.S.A.,  
*Professor of Geology*,  
 45 William Street.
- JOHN MATHESON, M.A. (Queen's),  
*Professor of Mathematics*.  
 Alice Street.
- A. S. FERGUSON, M.A. (St. Andrews), (Oxon),  
*Professor of Mental Philosophy*.  
 Elmhurst, Centre Street.
- W. C. BAKER, M.A. (Queen's),  
*Professor of Experimental Physics on the  
 Robert Waddell Foundation*,  
 135 Centre Street.
- G. W. MITCHELL, M.A. (Queen's),  
*Professor of Classics*,  
 98 Bagot Street.
- A. C. NEISH, B.A. (Queen's), M.A., Ph.D. (Columbia),  
*Professor of Chemistry*,  
 79 Wellington Street.
- A. P. LOTHROP, M.A. (Oberlin), Ph.D. (Columbia),  
*Professor of Biological Chemistry*,  
 82 Beverley Street.
- L. F. GOODWIN, Ph.D. (Heidelberg), A.C.G.I., F.I.C.,  
*Professor of Physical and Industrial Chemistry*,  
 138 King Street.
- SPENCER MELVIN, M.D. (Aberdeen),  
*Professor of Physiology*,  
 King Street West

- R. O. JOLLIFFE, M.A., Ph.D. (Chicago),  
*Professor of Latin.*  
 26 Frontenac Street.
- ARTHUR L. HUGHES, B.A. (Cambridge), D.Sc. (Liverpool),  
*Research Professor of Physics,*  
 311 King Street West
- J. F. MACDONALD, M.A. (Queen's),  
*Professor of English.*  
 175 Stuart Street.
- G. B. REED, M.A., Ph.D. (Harvard),  
*Professor of Bacteriology.*  
 218 Albert Street.
- W. C. CLARK, M.A. (Queen's),  
*Professor of Political and Economic Science,*  
 125 Centre Street.
- J. H. BROVEDANI, Docteur ès Lettres (Rennes),  
*Professor of Spanish and Italian,*  
 22 Division Street.
- REV. H. T. WALLACE, B.A. (Toronto), Ph.D. (Queen's),  
*The Robert Waddell Associate Professor of Semitic  
 Languages and Literature,*  
 208 Albert Street.
- R. K. HICKS, B.A. (Cantab.), M.A. (Harvard),  
*Associate Professor of French,*  
 Kensington Avenue.
- C. F. GUMMER, M.A. (Oxon),  
*Associate Professor of Mathematics,*  
 143 Collingwood Street.
- JOHN WADDELL, B.A. (Dalhousie), B.Sc. (London), D.Sc. (Edinburgh),  
 Ph.D. (Heidelberg),  
*Associate Professor of Chemistry,*  
 132 Earl Street.
- J. K. ROBERTSON, M.A. (Toronto),  
*Associate Professor of Physics,*  
 105 Albert Street.
- J. T. MCNEILL, B.A., Ph.D. (Chicago),  
*Associate Professor of European History,*  
 32 Frontenac Street.
- N. MILLER, M.A. (Queen's), Ph.D. (Harvard),  
*Associate Professor of Mathematics,*  
 450 Johnston Street.

- NORMAN J. SYMONS, M.A. (Oxon),  
*Assistant Professor of Philosophy,*  
 64 Lower Union Street.
- J. L. MCKEE, B.A. (Royal University of Ireland), M.Sc. (National University of Ireland), Ph.D. (Freiburg),  
*Assistant Professor of Chemistry,*  
 275 Brock Street.
- W. M. CONACHER, B.A. (London),  
*Assistant Professor of French.*  
 71 Pembroke Street.
- A. E. PRINCE, M.A. (Oxon),  
*Assistant Professor of English History,*  
 35 Aberdeen Street.
- JAMES A. ROY, M.A. (Edinburgh),  
*Assistant Professor of English,*  
 115 William Street.
- J. C. BALLARD, M.Sc. (New York),  
*Assistant Professor of Political and Economic Science,*  
 120 College Street.
- W. A. MACKINTOSH, M.A. (Queen's),  
*Assistant Professor of Political Science,*  
 310 University Avenue.
- R. O. EARL, B.A. (Queen's),  
*Assistant Professor of Biology,*  
 107 Frontenac Street.
- A. B. KLUGH, M.A. (Queen's),  
*Assistant Professor of Biology,*  
 117 Bagot Street.
- K. P. JOHNSTON, M.A. (Queen's),  
*Assistant Professor of Mathematics,*  
 361 Johnston Street.
- A. F. G. CADENHEAD, B.A. (Queen's),  
*Lecturer in Chemistry,*  
 10 Alice Street.
- L. G. KELL, B.A. (Queen's),  
*Lecturer in Greek,*  
 266 Rideau Street.
- O. C. KINNICK, M.A.  
*Lecturer in English,*  
 111 Lower Union Street.
- R. H. SNOW, S.B. (Harvard),  
*Lecturer in English,*  
 20 Stuart Street.
- F. M. WOOD M.A., B.Sc. (Queen's),  
*Lecturer in Mathematics,*  
 450 Johnston Street.



## III.—OTHER INSTRUCTORS

- WILHELMINA GORDON, M.A. (Queen's),  
*Instructor in English,*  
 122 University Avenue.
- MRS. ETTA NEWLANDS, M.A. (Queen's),  
*Instructor in Mathematics,*  
 25 Concession Road.
- J. BEWS,  
*Physical Instructor for Men,*  
 212 Colborne Street.
- ESTHER O'CONNOR,  
*Physical Instructor for Women,*  
 28 Wellington Street.
- MADAME MCCONNELL, B.S., C.A.P.,  
*Fellow in French,*  
 44 Frontenac Street.
- H. R. JAMES, M.A.,  
*Fellow in Philosophy,*  
 Queen's University.
- A. D. MATHESON, M.A., B.D.,  
*Fellow in Philosophy,*  
 2460 Rosemont Boulevard,  
 Montreal, Que.

## TUTORS

- Tutors in English:* J. W. Darling, B.A., Dorothy Brown, Helen de Renzy, Annie Robinson.
- Tutor in Spanish:* Mildred Hallett.
- Tutors in Mathematics:* L. F. Smith, Grace H. Jeffrey, M.A., Edith Tuttle, W. E. French, Mabel O'Brian.
- Tutors in Physics:* M. B. Kehoe, Mabel O'Brian, C. E. Baltzer, G. W. Hudson, B.Sc.
- Tutors in Biology:* H. C. White, J. G. Coulson, B.A., Frank Gillan.
- Tutors in Economics and Banking:* W. G. Bennett, G. A. R. Emery, G. Steinberg, W. C. Anderson, Harry Scott, R. O. Campney, W. A. Irwin, B.A.
- Tutors in Chemistry:* A. G. Croal, B.A., F. A. Herman, A. Jacques, K. L. McAlpine, Cecile Stewart.

## OTHER OFFICERS

---

### The Observatory Board

THE PRINCIPAL AND THE PROFESSOR OF ASTRONOMY

### Curators of the Library

VICE-PRINCIPAL WATSON, PRINCIPAL DYDE, PROFESSORS MACDONALD,  
CAMPBELL, WADDELL, AND LOTHROP

### Librarian

LOIS SAUNDERS

### Dean of Women

MRS. W. E. MCNEILL, M.A.

### Director of the Summer School

PROFESSOR MACCLEMENT

### Curators of the Museums

THE PROFESSORS OF BIOLOGY AND GEOLOGY

### Examiners in Gaelic

VERY REV. M. MACGILLIVRAY, M.A., D.D., AND PROFESSOR MATHESON

## EQUIPMENT AND SPECIAL FACILITIES

### THE LIBRARY

The University Library, which has about 85,000 volumes and many thousand pamphlets, contains one of the best collections of books in Canada. The Canadian section has many rare and valuable historical documents, and is particularly well equipped for research studies.

The Library is open daily, except Sundays, from 9 a.m. to 4.30 p.m. The Reading Rooms are open from 9 a.m. to 6 p.m. and from 7.30 p.m. to 9.30 p.m. Intra-mural students may ordinarily have as many as three books out at one time but may not keep them longer than one week without a new entry.

### THE MUSEUMS

The Biological and Ethnological Museum has a large Botanical collection illustrating fully the flora of North America, Europe, Asia, South Africa, and Australia; a Zoological collection representing the Canadian fauna by a large number of prepared specimens of mammals, birds, reptiles, fishes, insects, and mollusca; and an Ethnological collection of weapons, utensils, dresses, and ornaments.

The Geological and Mineralogical Museum, which is situated on the ground floor of Ontario Hall, has a large collection of minerals, ores, rocks, and fossils, arranged to illustrate most of the subjects treated in the lectures.

### THE LABORATORIES

The Zoological laboratories occupy three rooms in the Medical Laboratories Building, and are well provided with material for dissection and with microscopes and other instruments.

The Botanical laboratories likewise occupy three rooms and are fully equipped with specimens and with modern apparatus.

The Chemical laboratories are in Gordon Hall. On the third floor are two laboratories for General Chemistry, one for Medical Chemistry, and one for Electro-Analysis. On the second floor are two for Quantitative Analysis, one for Organic Chemistry, one for Food and Water Analysis, and one (not yet equipped) for whatever future development demands. On the first floor are three for Qualitative Analysis, one for Industrial Chemistry, one for Physical Chemistry, one for Gas Analysis, one for Spectroscopy, and one dark room for Photography. Besides these there are small separate laboratories for research work.

The Physical laboratories are in the southern half of Ontario Hall. Two of the large rooms on the first floor are devoted to the more elementary laboratory work of the first and second years and a commodious



room on the second floor is arranged as an electrical laboratory for advanced work. Various smaller rooms are fitted for special purposes. One of them is for work in Physical Optics—Spectrometry, Polarimetry, and Spectroscopy. Another is well equipped as a dark room for Photography. A third is arranged for X-ray and photometric work. Other rooms are used as private laboratories.

### THE OBSERVATORY

The Observatory has a transit room, a computing room, and an equatorial room with revolving dome. The equatorial telescope has a six-inch objective, declination and right ascension circles, and a driving clock. The transit has a three and a half inch objective. The further equipment consists chiefly of a striding level, a chronograph, a mean time clock, and a sidereal time clock.

### FACILITIES FOR FIELD WORK

**Geology and Mineralogy.** In the vicinity of Kingston a greater variety of economic minerals and metalliferous ores is mined than in any similar area in Canada. Through the kindness of the managers the various mines may be visited by the Geology and Mineralogy classes, and students may thus obtain valuable information concerning field conditions.

**Botany.** The great diversity of land surface in the vicinity of Kingston enables the students of Botany readily to make field studies of the various plant associations. Within two miles of the city limits are extensive reed marshes, bordered by water gardens well stocked with the swimming and submerged societies of plants. A drive of eight miles permits the study of an excellent example of sphagnum moor, with all the plants of our latitude characteristic of muskeg conditions. An hour's drive in another direction reaches a region of high, dry, granite hills where xerophytic modifications dominate the flora. A carefully preserved mesophytic meadow with a forest plantation is within walking distance of the University.

### FACILITIES FOR ATHLETICS

The University provides ample facilities for athletics. An excellent gymnasium, equipped with shower-baths, large swimming pool, running track, and all apparatus for physical training, stands in the University grounds. Beside the gymnasium is a large covered skating rink. A block from the University is the football field, with a Stadium given by Mr. James Richardson in memory of his brother, Captain George Richardson, a Queen's graduate and a former athlete, who was killed in the Great War. There is room and equipment for all students who wish to take part in football, hockey, basketball, tennis, track athletics, swimming, boxing, fencing, or wrestling.

## GENERAL INFORMATION

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### DEGREES

By the Royal Charter granted to Queen's College, it is "willed, ordained, and granted that the said College shall be deemed and taken to be an University, and that the students in the said College shall have liberty and faculty of taking the degree of Bachelor, Master, and Doctor in the several Arts and Faculties."

The degrees at present conferred under the statutes of the University are as follows:

#### I.—HONORARY DEGREES

Doctor of Divinity, D.D.; Doctor of Laws, LL.D.

#### II.—DEGREES BY EXAMINATION

##### 1.—In Arts

Bachelor of Arts, B.A.; Master of Arts, M.A.; Doctor of Philosophy, Ph.D.

##### 2.—In Theology

Bachelor of Divinity, B.D.

##### 3.—In Medicine

Doctor of Medicine, M.D.; Master of Surgery, C.M.; Doctor of Public Health, D.P.H.; Doctor of Science, D.Sc.

##### 4.—In Science

Bachelor of Science, B.Sc.; Master of Science, M.Sc.; Doctor of Science, D.Sc.

### HOODS

Each Degree has its distinctive hood, as follows:

B.A.—Black, bordered with red silk.

M.A.—Scarlet.

B.D.—White, bordered with crimson plush.

M.D. and C.M.—Scarlet, bordered with white.

B.Sc.—Black silk, bordered with yellow (old gold) silk.

D.D.—Black silk, lined with white silk.

M.Sc.—Black silk, lined with yellow, bordered with yellow.

D.Sc.—Yellow silk, bordered with black.

LL.D.—Black silk, lined with blue silk.

Ph.D.—Black silk, lined with purple, bordered with white.

## RELATION TO OTHER INSTITUTIONS

### The Ontario Department of Education

The Department of Education accepts certain Courses in Arts as the academic qualification for High School Assistants, for Specialists, and for Inspectors.

### English Universities

OXFORD.—Queen's University is admitted to the privileges of the *Colonial Universities' Statute*. These privileges are: (1) A student who has taken two full years' work at Queen's, including Greek 2, will be admitted as a *Junior Student*, i.e. he will be excused from the University Matriculation examination known as *Responsions*. (2) A student who has taken at least three years' work at Queen's, including Greek 2, and (a) has taken First or Second Class Honour standing in at least two of the subjects presented for the Degree of Bachelor of Arts, and (b) has taken Pass standing in not less than seven Pass courses, will be admitted as a *Senior Student*, i.e. he will be excused from the University examinations known as *Moderations*. Such a student may reckon the term in which he matriculates as his fifth term, and he may take his B.A. degree after a residence of eight terms instead of twelve, as ordinarily required, provided he passes the prescribed examinations.

CAMBRIDGE.—Graduates in Arts, provided they have passed one or more examinations after matriculation in (a) Latin; (b) either Greek, French, or German; (c) Mathematics, are entitled to the benefit of the statute in regard to affiliated institutions, viz.—(1) to be exempted from all parts of the *Previous Examination*, (2) to count the first term of attendance as the fourth of residence.

LONDON.—Queen's University is recognized under Statute 116 of the University of London. Graduates of Queen's are therefore admitted to the courses leading to a degree at the University of London without passing the Matriculation of that University.

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## EXTENSION LECTURES

Members of the staff are prepared to lecture at outside points on a great variety of subjects. The lectures are specially suitable for University extension work, for courses of study planned by various organizations, and for teachers' conventions. A complete programme of lectures and full information on any point connected with them will be supplied upon application to the Registrar, Queen's University.

### DEAN OF WOMEN

The Dean of Women, Mrs. W. E. McNeill, M.A., will assist the women students in planning their courses, give them information and help of other kinds, and advise them in all matters in which they may feel the need of counsel.

Mrs. McNeill may always be reached by correspondence addressed to her at the University. During the session she may be consulted at her office in Kingston Hall.

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### EXPENSES

At the present time the average student pays for table board from \$5.50 to \$6.50 a week, and for room from \$2.50 to \$3.50 a week.

There is now a cafeteria on the University grounds at which meals can be obtained for \$5.50 a week.

For University fees see pages 45 and 46.

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### BOARDING HOUSES

Lists of Boarding Houses for men students may be obtained from the Registrar.

Women students are not permitted to lodge in houses in which men are lodging. A list of approved houses where suitable accommodation is provided for women students will be furnished on application to the Dean of Women, Mrs. McNeill.

Two women's residences, known as "The Avonmore" and "The Earl Street Residence," capable of accommodating a limited number of students are established in connection with the University. Persons desiring information should communicate with the Dean of Women regarding the former and with the Registrar regarding the latter.

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### PHYSICAL WELFARE OF STUDENTS

Every student is required upon registration to contribute \$3 towards a health insurance fund which the University will use to provide medical care for those who are ill. Details of the plan will be announced at the beginning of the session.

All students are required to take physical training in their first year. The class meets twice a week during the session.

They are first examined by the University Physician, who is a member of the medical staff. When possible special exercises are prescribed to correct any physical defects found by such examination.

Women students are asked to bring high white running shoes, black bloomers, white middie blouse with white collar, and black middie tie.



**ATTENDANCE AT CHURCH**

All students are expected to attend a church of the denomination to which they belong.

During the session, Sunday services are conducted in the University by representatives of different denominations who are invited to preach to the students, professors, and visitors.

**REGISTRATION**

All students are required at the beginning of each session to have their names entered upon the University Register.

Intra-mural students must register *in person*, paying full fees for the session. Those registering during the first three days of the session will be charged the regular fees; but those registering at a later date will be charged an extra fee of \$3.

Intra-mural students are not allowed to register after October 7 unless at some time before this date they have obtained permission from the Faculty to register later.

Regulations for extra-mural students will be found on pages 37-44.

## ADMISSION TO THE FACULTY OF ARTS

1. Candidates desiring to enter the Faculty of Arts should make application for admission on forms supplied by the Registrar.

2. The application should be accompanied by matriculation or other certificates. These will be returned when the candidate's standing is determined.

## I.—ADMISSION BY MATRICULATION

3. Matriculation examinations are conducted for the Universities of Ontario by the University Matriculation Board. Details regarding these examinations may be found in a separate publication entitled REQUIREMENTS FOR MATRICULATION. This also contains a list of the Matriculation Scholarships and the condition of award.

4. The Matriculation examination is of two grades called *Pass* and *Honour* Matriculation.

## A. Pass Matriculation

5. The subjects of Pass Matriculation are as follows: *Latin, English, History, Mathematics*, and any two of the following: *Greek, German, French, Spanish, Experimental Science* (Physics and Chemistry).

6. The pass standard is forty per cent. with an average of sixty per cent.

7. A student who presents a certificate of Pass Matriculation will be admitted to the first year's work in Arts and may expect to graduate in four years.

## B. Honour Matriculation

8. The subjects of full Honour Matriculation are as follows: *Latin, English, History, Mathematics*, and any two of the following: *Greek, German, French, Spanish*, and either *Experimental Science* (Physics and Chemistry) or *Biology* (Zoology and Botany).

9. A candidate who holds a certificate of full Honour Matriculation or Entrance to Faculty of Education will, on the payment of the *pro tanto* fee, be allowed the first year work in as many as five of the following subjects, provided he has made forty per cent. in each: *Latin, Greek, German, French, Spanish, Mathematics, English, History, Chemistry, Physics, Biology*; but only a *pro tanto* allowance will be made in *Physics, Chemistry, and Biology* to students proceeding to course 2 in these subjects. In such cases the Departments concerned will grant exemption from all or part of *Physics 1, Chemistry 1, or Biology 1* on presentation of evidence regarding the work covered.

10. A candidate without a full certificate will in no case be allowed more than *four courses*. Such a candidate, under the special conditions stated in section 9, will be allowed the first year work in all subjects up to four in which he has made forty per cent., with an average of fifty per cent.

*No candidate is eligible for an Honour Matriculation Scholarship whose mark in any one of the competitive papers falls below fifty per cent.*

11. A candidate with Honour Matriculation in four or more subjects may expect to graduate in three years, if he is on a Pass Course.

## II.—ADMISSION BY EQUIVALENT EXAMINATION

### A.—Examinations Equivalent to Pass Matriculation

12. Candidates who produce certificates of Matriculation into any university in the British Empire, will be allowed to enter the Faculty of Arts without further examination. Matriculation standing from universities in other countries than the British Empire will be accepted *pro tanto*.

13. The following certificates are accepted for Pass Matriculation in the subjects which they cover, but in no case will they admit to the University unless at least one foreign language is included:

Alberta . . . . .	Grade XI.
British Columbia . . . . .	Intermediate.
Manitoba . . . . .	Second Class.
New Brunswick . . . . .	First Class License.
Newfoundland . . . . .	Associate (Junior).
Nova Scotia . . . . .	Grade XI (average 60, minimum 50).
Ontario . . . . .	Entrance to Normal School.
Prince Edward Island . . . . .	Honour Diploma or First Class License on Second Year Certificate from Prince of Wales College.
	[ The University School Leaving.
Quebec . . . . .	{ Model School Diploma under certain conditions.
	[
Saskatchewan . . . . .	Second Class.

14. A candidate who has not passed the matriculation examination in Latin, or in Greek, German, or French, must as a general rule attend the Preparatory course in such language for one session and pass the University or equivalent matriculation examination before being ad-

mitted to the regular first year course in that subject. Those, however, whose previous work in a particular language has almost reached the matriculation standard may transfer from course A to course 1 after the mid-year examination, if their instructors think them capable of proceeding with first year work. But no student shall be permitted to count a Preparatory course towards a degree if he receives credit for it under these conditions.

### B. Examinations Equivalent to Honour Matriculation

15. Candidates may obtain *pro tanto* Honour Matriculation standing if they hold teachers' \*certificates, or the non-professional standing for such certificates, of the grades indicated below:

Alberta . . . . .	Grade XII.
British Columbia . . . . .	Senior Grade.
Manitoba . . . . .	First Class.
New Brunswick . . . . .	First Class.
Newfoundland . . . . .	Associate Grade.
Nova Scotia . . . . .	Grade XII (50% required).
Ontario . . . . .	Entrance to Faculty of Education.
Prince Edward Island . . . . .	Honour Diploma of Third Year, Prince of Wales College.
Saskatchewan . . . . .	First Class.

16. Candidates whose certificates entitle them to full Honour Matriculation will be allowed credit for five courses, under the conditions specified in section 9 above.

17. Candidates whose certificates do not entitle them to full Honour Matriculation may be allowed certain subjects under the provisions of section 10 above.

### III.—ADMISSION BY SPECIAL REGULATION

18. In the case of students who present certificates showing that they are over the age of twenty-one, the Senate may postpone the Matriculation examination. Except by special permission of the Senate and upon recommendation of the Medical or Science Faculty, such un-

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\*Candidates holding certificates from the Department of Education of Ontario should send their certificates to the Registrar, Queen's University, in order to have standing allowed. Candidates holding certificates from Departments of Education outside of Ontario should write to the Departments concerned asking that their marks be sent to the Registrar, who will then advise regarding the standing allowed.



matriculated students will not be admitted to the first year in Arts for the purpose of proceeding to a course in Medicine or Science.

19. Those entering the Faculty of Arts under this regulation without having matriculated in Latin, or in Greek, German, or French are subject to the regulation in section 14.

## REGULATIONS REGARDING EXTRA-MURAL WORK

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In order to meet the needs of students who are unable to do all their work in residence, of teachers in actual service who wish to improve their professional qualifications in certain subjects, and of those persons in general who, though unable to attend the regular classes, are yet desirous of pursuing particular studies under competent direction, the University conducts a system of extra-mural instruction. This work is as nearly as possible identical with that taken up by the intra-mural students and the same examinations are set for all. Candidates who fulfil at least the minimum requirements of residence and otherwise comply with the conditions stated below may qualify for the various degrees to which their Courses lead; while those who finish a three years' Course, covering three-fourths of the classes required for a degree, are entitled, on the payment of a fee of \$5, to a University Diploma.

### Conditions of Admission to Extra-mural Work

1. In order to register for the first time extra-mural students must be residents of Canada. Students residing outside of Canada, however, who have attended the University for one session or who have taken work extra-murally for one session are allowed to complete their Course.

2. Candidates for a degree, unless twenty-one years of age, must pass the Matriculation examination or its equivalent before they can register as extra-mural students.

3. No one is permitted to take work at Queen's in the same year as he is taking work at any other educational institution or writing on any outside examination other than Pass Matriculation.

4. An intra-mural student may become an extra-mural student only by special permission of the Faculty. A student registered intra-murally in the winter session will not be allowed to continue his course extra-murally in the following summer, unless by special permission he has been allowed to postpone one or two courses until the summer. In such case, however, he must attend the Summer School. But any student may, in preparation for the September Supplemental examinations, register for instruction in Pass courses in which he failed in the sessional examinations of the previous April, if they are offered extra-murally in the summer.

### Registration in Extra-mural Courses

5. Applications for registration must be made on forms supplied by the Registrar, and must satisfy the conditions stated in section 6. They

must reach the University by the dates mentioned in section 7; and they must be accompanied by the fees specified in section 8.

6. (a) An extra-mural student may register for winter work (October-April) or for summer work\* (May-September) or for both, but he may not take more than *five* courses in the academic year (October 1-September 30). Of the five courses permitted he may take as many as three in the winter and as many as two in the summer. If he attends the Summer School he may take three courses in the summer, if he received credit for only two in the preceding winter.

(b) The courses selected in each year are subject to the approval of the Committee on Studies and, in the case of candidates for degrees, must conform to the regulations for concentration, distribution, and sequence of work (see page 61 ff.).

(c) Only such courses may be taken as the various departments offer to extra-mural students. The number of such courses varies with the department and is much greater in the winter than in the summer. Students in Physics, Chemistry and Biology must do the laboratory work in these subjects intra-murally either at the Summer School or in the regular University session.

(d) Courses 1 and 2 in any subject except History, Economics, and Philosophy must be taken in different academic years.

(e) The courses chosen either for winter or for summer must be such as the Time Table for that session permits.

7. (a) Extra-mural students should register two or three weeks before October 1 or May 1 in order that they may receive the preliminary instructions and provide themselves with books in time to start work promptly at the beginning of the month. They will be allowed to register up to September 20 for the winter or May 2 for the summer at the regular fee, and up to September 30 or May 9 on payment of an extra fee of \$3. Only under exceptional circumstances and by special permission of the Faculty will registration be accepted after these dates.

(b) Extra-mural students living so far from the University that they cannot receive the examination returns before the last date of registration should send fees to the Registrar within the required dates, stating the classes in which they wish to register if successful in their examinations. Necessary changes may be made later.

8. The fees payable upon application for registration are as follows:

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\*The Calendar is issued in the spring but is not in force until the following autumn. Summer work, therefore, is based on the Calendar of the preceding winter.

(a) *Registration.* A registration fee of \$10 must be paid once in each year (October 1-September 30) and an extra fee of \$3 for late registration as provided in section 7 (a).

If a student registers in the autumn he has the opportunity of taking courses in the winter and in the following summer on one registration fee; if he registers in the spring his fee will cover summer work only.

A student may register in the autumn for all the courses he intends taking in the academic year or he may register only in those which he intends to complete in the winter, leaving the rest to be added in April.

(b) *Tutorial.* The tutorial fee is \$10 for each course and \$5 for each half-course (the latter are indicated in departmental prescriptions by the letter a or b\* after the number). If the required amount of work in a course is not completed in the session, winter or summer, in which it is begun, the tutorial fee must be paid again.

(c) *Pro Tanto.* A student desiring to have courses credited on work done elsewhere must pay a *pro tanto* fee of \$10 at the time of his first registration.

#### Minimum Residence Requirements

*The University does not undertake to make it possible for a student to get a degree if he merely satisfies the minimum residence requirements given below, since in some subjects only a limited amount of instruction can be given extra-murally or in the Summer School. In the Sciences, for example, all the laboratory work must be done at the University and a student specializing in these subjects may find it necessary to spend two or three years in residence. The various departmental prescriptions (see pages 72 ff.) indicate the parts of the work offered extra-murally. Candidates should examine these prescriptions in connection with the Regulations for Concentration on page 61.*

9. All candidates for a degree must attend at least one full winter session or at least four full sessions of the Summer School (taking work in at least four different departments), except as noted below:

(a) Upon the recommendation of the departments concerned the Faculty of Arts may, for sufficient reasons, exempt graduates of this or another University from the above regulation.

(b) The Faculty of Arts may under special circumstances accept attendance for one or two sessions at another institution in lieu of one or two sessions of the Summer School periods at this University.

10. Candidates for Specialists' and Inspectors' certificates must attend at least two full sessions or, under the direction of the University, one full session and at least two sessions of the Summer School.

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\*Outlines in half-courses of the second term are not sent out till January.



**Manner of Conducting Extra-mural Classes**  
(See also section 22)

11. The method of giving extra-mural instruction necessarily varies with the subject. Detailed information is contained in the instruction sheets provided from time to time. These specify the prescribed reading, assign exercises and essays to be written, and in some cases give the substance of intra-mural lectures. The first instalment of work is sent to the student as soon as he registers. The date of each essay or exercise coming in and of each criticism or fresh piece of work going out is recorded at the Registrar's Office. Each essay or exercise is promptly examined and returned to the writer with criticisms and suggestions.

12. Students should address their work and all inquiries regarding their work to The Tutor in..... (whatever the subject may be), Queen's University, Kingston, Ontario. In no case should the name of the tutor be used.

**Transference from Extra-mural to Intra-mural Classes**

13. Extra-mural students may become intra-mural students during the winter session at any time after December 1, in those courses in which they have satisfactorily completed the work prescribed up to the date of their transferring. Fees already paid will be applied on intra-mural charges, and the balance alone will be required.

14. Students who transfer to intra-mural work before January 17th may add enough "b" half-courses to give them five classes in the second term, if such half-courses are available and the pre-requisite work has been done.

**Library Facilities for Extra-mural Students**

15. With the exception of text-books prescribed in the Calendar, which all students must provide for themselves, and of dictionaries, encyclopædias, and other volumes not usually lent, extra-mural students may borrow from the University Library any books required in their work.

16. Three books may be borrowed at one time, provided that no two relate to the same piece of work. Unless a special arrangement is made, a book may be kept only two weeks from the date on which it is received.

17. Special arrangements are made for supplying the necessary books to extra-mural students in the Ph.D. Courses.

18. Extra-mural students must send to the Librarian a deposit of \$2 for the use of one book at a time, \$4 for two books, and \$5 for three. Books may be exchanged as often as the borrower wishes; and when all are returned, the deposit, less the amount spent for postage, will be repaid on request. No fee is charged for the use of the Library.

19. All communications concerning books and deposits must be addressed to The Librarian, Queen's University, Kingston, Ontario.

#### Regulations regarding Examinations

20. Examinations are held in January, April, and September, as follows:—

(a) Mid-session examinations in all half-courses of the first term are held about the second week of January. These examinations are final and may not be postponed till April or September.

(b) Examinations in all whole courses and in half-courses of the second term are held at the end of April. Examinations in Pass courses may be postponed till September.

(c) Examinations in Pass courses and in all work offered in the summer are held in September. Ordinarily no student may write in September on more than two whole courses or equivalent, but he may write on three if examinations in one or more have been postponed from the previous April, or if by reason of Summer School attendance he has been permitted to register in three courses in the summer.

21. Applications for examination in the particular subjects upon which a student proposes to write, accompanied by the proper fees, must reach the Registrar's office by December 1 for the January examinations, by March 2 for the April examinations, and by August 1 for the September examinations. The fees are \$3.00 for each half-course examination and \$6.00 for each whole course examination, with an additional charge of \$3.00 for late application, if accepted.

22. No student is admitted to examination in any subject unless he has sent in at the dates specified all the essays and at least eighty per cent. of the required exercises. The last of the written work should reach the University at least two weeks before examinations begin.

23. If a student who has completed the required work in a given subject wishes in some subsequent academic year merely to take the examination, he must pay the registration fee of \$10.00 as well as the examination fee specified in Section 21. If in the meantime, however, the course has been discontinued or radically changed the University will not undertake to provide a special examination.

24. Extra-mural students in any of the modern languages will be required to take an hour a week of oral work with one of the regular classes during their intra-mural residence, and pass an examination on such work. Students attending the Summer School will be given an opportunity of completing this oral work in the languages offered in the Summer School.

25. Candidates for Honours in German or French must satisfy the Department concerned as to their oral qualifications. When an examination is necessary it must be taken at the University.

26. Practical examinations in Science must be taken at the University.

27. Examination centres have been established at most of the larger cities and towns throughout Canada and a list of such centres is sent to all extra-mural students several months in advance of the examinations. Those wishing to have new examination centres established must make application, accompanied by the special fee of \$10, by December 1 for January examinations, by February 15 for April examinations, and by July 15 for September examinations.

### Determination of Standing

29. Sections 23 and 24 of GENERAL REGULATIONS, page 57, apply also to extra-mural students.

### Fees for Extra-mural Students

30. A full statement regarding fees may be found under FEES, page 45.

31. Extra-mural students who enter as intra-mural students during the winter session will have their extra-mural fees applied on intra-mural charges and need then pay only the balance. (See section 13.)

32. In no case whatever will refunds be made. In case of sickness, however, but under no other conditions, an application to have fees *carried over* will be considered if it is made within one month of registration and is accompanied by a doctor's certificate.

33. Cheques or drafts on any branch of the Merchants Bank will be received at par. In other cases 15 cents per \$100 should be added to cover bank charges. Remittances may be made by Post Office or Express Order.

## THE SUMMER SCHOOL

The twelfth session of the Summer School begins on Monday, July 4, 1921, and closes on Friday, August 12.

Courses will be given in Latin, German, French, Spanish, English, History, Philosophy, Economics, Mathematics, Physics, Chemistry, and Biology. By reason of daily lectures and almost individual instruction, it is possible to cover about half of the work done in the corresponding courses of the winter session.

The libraries and various laboratories are available for use as in the winter session.

### Purpose of the Summer School

The Summer School offers University advantages to those who cannot attend the classes of the regular session.

It gives TEACHERS an opportunity to improve their scholarship in particular lines of study, to observe methods of teaching, and to become acquainted with books and equipment not ordinarily available.

It gives INTRA-MURAL students who have lost standing through illness or other causes an opportunity of qualifying for the September Supplemental examinations. Moreover, intra-mural students in their first or second years, who are unable to carry the required five courses, may, with the consent of the Committee on Studies, take three or four courses in the winter and the rest extra-murally in the summer, provided that they attend the Summer School.

It gives EXTRA-MURAL students an opportunity to take the oral work required in the modern languages, to do in the laboratories the practical work required in the Science courses, and to satisfy by attendance at four sessions the minimum residence requirements for the degree of B.A. (See sections 9 and 10 under REGULATIONS REGARDING EXTRA-MURAL WORK). Two sessions of the Summer School are accepted by the Department of Education as equivalent to one of the two winter sessions required for Inspectors' and Specialists' Certificates.

### Admission

No examination is required for admission to the Summer School. The classes are open to all who desire to improve their scholarship or professional equipment. Candidates for a degree, however, must satisfy the Matriculation requirements before being admitted to the University examinations.



Summer School students who are candidates for a degree must register in April as extra-mural students under the usual regulations, except as provided below:

(a) Those who are merely repeating the work of the preceding regular winter session may register for the Summer School only.

(b) Those registering at the University for the first time may enrol as extra-mural students after entering the Summer School, on condition that before coming up for examination they write at least eighty per cent. of the extra-mural exercises on the work not covered in the Summer School.

No student working for credit is allowed to register for more than three courses in the Summer School. He may attend others as a visitor.

### Examinations

No examinations are held in connection with the Summer School. Students desiring credit for their work should write at the regular University examinations in September. See section 20 under REGULATIONS REGARDING EXTRA-MURAL WORK.

### Further Information

The Announcement of the Summer School, containing full details, concerning the work offered is published each year about April 1, and is supplied on application.

All inquiries concerning the Summer School should be addressed to The Registrar, Queen's University, Kingston, Ontario.

## FEES

Cheques tendered in payment of fees should be certified by the banks upon which they are drawn.

## INTRA-MURAL

*The fees specified under the first three heads are payable each year upon registration.*

*Tuition* (including class fees, registration, and January and April examinations) .....\$54 00

*Laboratory* (for those taking courses in Science)—

## Fees:

Each whole course ..... 5 00  
Each half course ..... 3 00

## Deposit:

Without Chemistry ..... 5 00  
With one course in Chemistry ..... 10 00  
With two or more courses in Chemistry ..... 20 00

*Student activities:*

Men ..... 11 00  
Women ..... 10 00  
(Health Insurance, \$3; Athletics, \$5; Arts Society, \$3;  
Levana Society, \$2.)

*The fees specified below are payable as they are incurred.*

*Special Charges:*

Pro tanto allowance of courses ..... 10 00  
Late registration ..... 3 00  
Change of courses after registration ..... 2 00  
Each preparatory course ..... 5 00  
Late application—for examination or graduation ..... 3 00  
Writing examinations at outside centres ..... 5 00  
Supplemental examination ..... 10 00  
Fees for special students not paying full fees:  
Registration ..... 10 00  
Tuition: each course ..... 12 00  
Examination, January, April, or September ..... 10 00  
(Student activities and Laboratory charges as above)

*Certificates:*

Matriculation Certificate ..... 5 00  
Certificate of Standing ..... 1 00  
Diploma for three years' work ..... 5 00

*Graduation:*

Bachelor of Arts (in Course) .....	10 00
Bachelor of Arts <i>ad eundem gradum</i> .....	20 00
Master of Arts .....	20 00
Doctor of Philosophy .....	50 00
Doctor of Science .....	50 00
Extra Fee for degree <i>in absentia</i> .....	10 00

## EXTRA-MURAL

*The fees specified under the first two heads are payable upon registration; the examination fees are payable at the dates given in section 21,*  
REGULATIONS REGARDING EXTRA-MURAL WORK.

*Registration:*

Regular fee (covering October-September) .....	\$10 00
Late registration .....	3 00
Change of work after registration .....	2 00
Pro tanto allowance of courses .....	10 00

*Tutorial:*

Each course .....	10 00
Each half-course .....	5 00

*Examination:*

Each whole course, April or September .....	6 00
Each half-course, January, April, or September .....	3 00
Establishing new centre .....	10 00
Late application .....	3 00

*Graduation and other Certificates:*

The same fees are charged as in the case of intra-mural students.

## SUMMER SCHOOL

*Extra-mural students who register in April are allowed a rebate on the full Summer School tuition of half the tutorial fees previously paid.*

Full Summer School attendance .....	\$25 00
Three weeks' attendance .....	15 00
Laboratory deposit as required of other intra-mural students.	

## SCHOLARSHIPS, PRIZES, AND MEDALS

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### I.—MATRICULATION SCHOLARSHIPS

For a list of Matriculation Scholarships and the conditions of award see the publication entitled REQUIREMENTS FOR MATRICULATION.

The following scholarship was founded after the matriculation pamphlet was issued:

#### Day Memorial, \$25

Founded in memory of Calvin Wellington Day, M.A., Lieutenant 2nd Battalion, Canadian Expeditionary Force.

Awarded in one of the following groups: (a) Greek and Latin; (b) French and another modern foreign language; (c) English and History; (d) Mathematics and Physics; (e) Experimental Science and Biology. With free tuition, \$125.00.

### II.—SCHOLARSHIPS IN ARTS

#### New York Queen's Alumni Scholarship in Biology

Value \$50. Given by the New York Queen's University Society and awarded to the student in Arts or Medicine who obtains the highest number of marks in the Honour examinations in Physiology and Histology.

#### The Andrew Haydon Scholarship in Colonial History

Value \$50. Founded by Andrew Haydon, M.A. '93, LL.B. Awarded on the results of the sessional examinations in the Pass class in Colonial History (History 3). Not to be held by any student unless in residence in the session following the award.

#### The W. M. O. Lochhead Scholarship in Political Science

Value \$50. Founded by W. M. O. Lochhead, M.A., '98, Kitchener, Ont. The scholarship will be assigned alternately to the two classes Economics 1 and 2; in the session of 1921-22 to Economics 1; in the session of 1922-23 to Economics 2. It will be awarded to the student taking the highest standing in the sessional examinations and classwork, provided he is in attendance in some faculty of the University in the following session. It is not to be held twice by the same student.

#### The P. D. Ross Scholarship in Commerce

Value \$150. Founded by P. D. Ross, LL.D., Ottawa. Awarded on the basis of the third year's work in the Commerce Courses, provided that the candidate is taking at least four full courses or their equivalent



in the "Special Subjects" in Commerce and Administration and is one year from the date of his graduation in Commerce. Tenable during the student's fourth year, if it is taken intra-murally.

#### **Alexander Laird Scholarship in English**

Value \$50. Founded by D. H. Laird, Esq., Winnipeg, in memory of the late Rev. Alexander Laird. Awarded to the student making the highest standing in English 1 in the April examinations.

#### **The Ann Eliza Stafford Scholarship in Biology**

Value \$40. Founded by T. T. Bower, Esq., Toronto. Awarded to a graduate with first class Honours in Biology who is competent to undertake research work in Physiology. The holder must be willing to devote himself exclusively to research and must carry on his investigations in the University laboratories for at least one year from the date of his appointment.

#### **The M. C. Cameron Scholarship in Gaelic**

Value \$40. Founded by the late M. C. Cameron, M.P., Goderich. Awarded to the best Gaelic scholar, reader, and speaker. Application for examination should be submitted to the Registrar before January 15 in each year. Work prescribed: any 600 lines of Ossian's *Fingal*, Blackie's *Language and Literature of the Scottish Highlands*, Gaelic Grammar, Translation at sight of Gaelic into English and English into Gaelic. This scholarship will not be awarded to any candidate who does not take at least fifty per cent. of the total number of marks in the examination.

#### **The Maclellan Scholarship in Greek**

Value \$25. Given by the late Hon. Jas. Maclellan, LL.D., Toronto, to encourage the study of Greek in the University. Awarded on the results of the April examinations in Greek 2 to the best student who is proceeding to the Honour course in Greek. Not to be held by any student unless in actual attendance, and not necessarily to be awarded unless a sufficient degree of merit is shown.

#### **The '01 Fellowship in English**

Value \$50. This Fellowship was established by the Class which graduated in 1901. It is awarded by the Senate to the student who is to act as Assistant Tutor in English during the following session.

#### **The N. F. Dupuis Scholarship in Mathematics**

Value \$60. This is one of three scholarships founded by the graduates of the University in honour of the late Professor N. F. Dupuis on the completion of his forty-five years' service as Professor in the University. The scholarship is awarded to the student who takes the highest standing in Mathematics 1 in the April examinations.

### The William Moffat Scholarship

Value \$50. Founded by Dr. William Moffat of Utica and awarded annually to the student making the highest standing in first year Chemistry. The award will be made on the combined results of class work and examination, and students in both Arts and Science are eligible.

## III.—SPECIAL SCHOLARSHIPS

### A.—The Rhodes Scholarship

A Rhodes Scholarship is tenable for three years, and is of the value of £300 per annum. In addition a Scholar will receive until further notice an annual bonus of £50.

Scholarships will hereafter be thrown into open competition in each Province, subject to the following conditions:—

1. Candidates must be British subjects, with at least five years' domicile in Canada, and unmarried. They must have passed their nineteenth, but not have passed their twenty-fifth birthday, on October 1st of the year for which they are elected.

2. Candidates must be at least in their Sophomore Year at some recognized degree-granting University or College of Canada, and (if elected) complete the work of that year before coming into residence at Oxford.

3. Candidates must elect whether they will apply for the Scholarship of the Province in which they have acquired any considerable part of their educational qualification, or for that of the Province in which they have their ordinary private domicile, home, or residence. They must be prepared to appear before the Committee of Selection for the Province they select.

In each Province there will be a Committee of Selection in whose hands the nominations will rest.

The Committees of Selection, appointed by the Trustees, will be instructed to bear in mind the suggestions of Mr. Rhodes, who wished that, in the choice of his Scholars, regard should be had to literary and scholastic attainments, fondness for and success in outdoor sports, qualities of manhood, moral force of character, and leadership in school and college life.

### *Method of Selection*

In accordance with the wish of Mr. Rhodes, the Trustees desire that "in the election of a student to a Scholarship, regard shall be had to (1) his literary and scholastic attainment, (2) his fondness for and success in manly out-door sports, such as cricket, football, and the like, (3) his qualities of manhood, truth, courage, devotion to duty, sympathy for and

protection of the weak, kindness, unselfishness, and fellowship, and (4) his exhibition during school-days of moral force of character and of instincts to lead and take an interest in his schoolmates." Mr. Rhodes suggested that (2) and (3) should be decided in any School or College by the votes of fellow-students, and (4) by the Head of the School or College.

Where circumstances render it impracticable to carry out the letter of these suggestions, the Trustees hope that every effort will be made to give effect to their spirit, but desire it to be understood that the final decision must rest with the Committee of Selection.

The following graduates of Queen's University have been awarded Rhodes Scholarships:

- J. M. Macdonnell, M.A., 1905.
- Norman S. Macdonnell, 1907.
- H. S. Smith, M.A., 1912.
- A. G. Cumming, M.A., 1914.
- K. E. Taylor, B.A., 1920.
- H. R. MacCallum, B.A., 1920.

### B.—The Science Research Scholarship

This scholarship of the annual value of £200 was founded by Her Majesty's Commissioners for the Exhibition of 1851, and is awarded to students who have given evidence of capacity for original research, and, except in very special circumstances, are under 30 years of age.

The nominee must be a British subject, must have been a *bona fide* student of this University for three years, must have been a student of this University for a full year immediately before his nomination, must be a student of this University at the time of his nomination (or he must have been a student at this University for a full year ending within twelve months prior to his nomination and since ceasing to be such student must have been engaged solely in scientific study), and must pledge himself not to hold any position of emolument while holding the scholarship. He is recommended to the Commissioners by the Senate of the University. The scholarship may be held for a second year, if the report of the first year's work be satisfactory to the Commissioners. In the absence of special circumstances, the scholar will be required to proceed to an institution other than the one by which he is nominated, and there pursue some investigation likely to promote technical industries or scientific culture. The particular investigation the student proposes to pursue must be stated before a scholarship can be awarded.

The following Science Research scholars have been appointed from Queen's University:

- Norman R. Carmichael, M.A., 1894.
- Thomas L. Walker, M.A., 1896.

Frederick J. Pope, M.A., 1898.  
W. C. Baker, M.A., 1900.  
C. W. Dickson, M.A., 1901.  
C. W. Knight, B.Sc., 1904.  
F. H. McDougall, M.A., B.Sc., 1905.  
Campbell Laidlaw, B.A., M.D., 1907.  
N. L. Bowen, M.A., B.Sc., 1909.  
Walter A. Bell, B.Sc., 1911.  
John R. Tuttle, M.A., 1913.  
Robert C. Cantelo, B.Sc., 1915.

### C.—Arts Research Fellowships

The University has established two Fellowships of the value of \$500 and two of the value of \$250, open to men and women who have taken an Honour B.A. at Queen's or an equivalent degree elsewhere. At the discretion of the Committee on Arts Research one of the \$500 Fellowships may be awarded as a Travelling Fellowship, but with this exception the appointments are given only to those undertaking graduate studies at Queen's.

A student appointed to a Travelling Fellowship must submit and have approved a plan of study, and must present a report on his year's work within twelve months of his appointment.

A student appointed to a Fellowship within Queen's may be required by the Committee in consultation with the Department concerned, to undertake work of any of the following kinds: (a) Independent investigation, (b) Assistance in research work carried on by the Department, (c) Tutorial assistance not to exceed six hours a week. The holder of a fellowship may be required to report in lectures or in written form the results of any investigations carried on.

Applications must be sent to the Registrar, accompanied with evidence of eligibility, not later than April 1 of each year.

*The Fellowships will be awarded only to candidates of distinction and promise.*

### IV.—PRIZES

Prizes are awarded for literary articles, essays, etc., as specified under each particular prize, and the competitions are open to students of the present or the preceding session.

#### *Conditions of Competition and Award*

1. Competitive papers must be given to the Registrar not later than April 3.

2. Each paper is to bear a motto, instead of the author's name, and must have attached to it a sealed envelope, bearing the same motto and



containing a written declaration over the author's signature, to the effect that it is his unaided composition.

3. The envelope attached to successful papers shall be opened and the writer's name made known at the Convocation at the close of the session.

4. Prizes will be awarded only to those productions which the examiners consider to be of sufficient merit.

5. All successful productions shall be the property of the University, and shall be at the disposal of the Senate.

#### Gowan Foundation No. I

Value \$25. Established by the late Sir James R. Gowan, K.C.M.G. Awarded for the best essay on *Canada and the Control of Foreign Policy*.

#### Gowan Foundation No. II

Value \$25. Given by the late Sir James R. Gowan, K.C.M.G., for the best collection of Canadian Ferns and Fern Allies. The collection must be delivered before December 15.

#### Gowan Foundation No. III

Value \$25 in books. Established by the late Sir James R. Gowan, K.C.M.G. Awarded in Honours in Political Science.

#### Latin and Greek Composition

Two prizes, each of the value of \$10 in books, are offered for competition for the best composition in Latin and Greek respectively. Subjects for composition, 1921-22: Latin Prose, Sir Samuel Dill's *Roman Society from Nero to Marcus Aurelius*, beginning "The power of Seneca," page 7, and continuing to "the last fateful order," page 9. Greek Prose, Sargent and Dallin's *Materials and Models for Greek Prose Composition*, Nos. 19-23.

#### Special Prize in German

A prize of the value of \$10 in books is awarded to the student obtaining the highest standing in German 2.

#### Special Prize in French

A prize of the value of \$10 in books is awarded to the student obtaining the highest standing in French 2.

#### James C. Rogers Prize in English

A prize of the value of \$5 in books. Awarded by James C. Rogers, B.A., '94, to the student obtaining the highest standing in English 2.

**Special Prizes in Spanish**

A prize of the value of \$10 in books is awarded to the student obtaining the highest standing in Spanish 2.

A prize in books, given by the Hispanic Society of America, is awarded to the student who obtains the highest standing in Honours.

**Special Prize in Italian**

A prize of the value of \$10 in books is awarded to the student obtaining the highest standing in Italian 1 or 2.

**Mary Fraser McLennan Prize in Hebrew**

A prize of the value of \$12, founded in memory of Mary Fraser McLennan, of Lancaster, by her sons. Awarded to the student obtaining the highest standing in Hebrew 1, provided he intends to pursue a Theological course in Queen's Theological College.

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**V.—MEDALS**

A medal is awarded by the University to the candidate who makes the highest standing in Honours in each subject, provided such standing is not less than seventy-five per cent.

A tutor shall not compete for the medal in any subject in which he is engaged in teaching the Honour work.

## GENERAL REGULATIONS

## GENERAL STUDENTS

1. General students are those who do not intend to proceed to a degree. They are exempt from matriculation and sessional examinations and from the regulations regarding Courses of Study.

2. No one is admitted to the University as a general student who is under twenty-one years of age at the date of registration, except by special permission of the Faculty.

## REGULATIONS REGARDING COURSES

*In addition to the regulations below, see those under "Courses of Study leading to the Degree of B.A." Note particularly the provisions for Concentration, Distribution, and Sequence of Work.*

## Attendance and Work

3. All students are required to write eighty per cent. of the essays and exercises, to do eighty per cent. of the required laboratory work, and to attend eighty per cent. of the class lectures during their period of intra-mural attendance, as necessary conditions of coming up for examination.

4. A student who has failed to pass the examination in any Pass course must repeat the attendance and examination in that course in his next year at the University if he intends counting that course towards a degree.

5. A student whose record is not satisfactory may be required to drop part of his work, or to change his Course. The Faculty may require a student who fails to pass in at least three courses in any of his first three years to leave the University, and will so require if such failure is repeated.

## Number of Courses in a Year

6. No student is allowed to take more than five courses in the academic year.

7. An intra-mural student, unless excused for some special reason, must take five courses in each of his first and second years. In no case will such a student be allowed to take fewer than three courses in his first or second year. He may, however, with the consent of the Committee on Studies, take three or four courses in the winter session and the rest extra-murally in the summer, provided that he attends the Summer School.

8. Subject to the provisions of Regulation 7, permission to withdraw from a course may be obtained from the Faculty at any time; but permission to make a change of course may be obtained only before October 31.

### Preparatory Courses

(Not offered to extra-mural students)

9. Students with full matriculation who desire to begin work in Greek, German, or Spanish may count course A in one of these subjects towards a degree. Such students may also count course A in one of these subjects toward the required number of courses for Minor, Major or Honour standing, provided that, in the case of Honours, at least five other courses are taken in the same subject.

Courses A and 1, however, may not be substituted for courses 1 and 2 where the latter are definitely prescribed.

10. Intra-mural students who desire to begin work in Latin, Greek, German, or French, and those who enter the University conditioned in any of these languages must, as a general rule, attend the Preparatory course in such language for one session, and pass the University or equivalent Pass matriculation examination before being admitted to the regular first year course in that subject. Those, however, whose previous work in a particular language has almost reached the matriculation standard, may transfer from course A to course 1 after the mid-year examination if their instructors think them capable of proceeding with first year work. But no student shall be permitted to count a Preparatory course towards a degree if he receives credit for it under these conditions.

11. Students who have taken Preparatory courses in two languages throughout the session and succeed in passing all their examinations in April may be permitted, on application to the Committee on Studies, to register for summer work in one course.

12. Students who have been granted special permission to take the first year in Arts for Matriculation purposes only, and who have passed in a Preparatory course in April, are allowed to register in course 1 during the following summer session, and to write on the September examination.

## REGULATIONS REGARDING EXAMINATIONS

### January Examinations

13. Mid-session examinations are held in all subjects, including courses for private work, about the second week in January. Such examinations, except as provided in Regulation 15, are final in half-courses



of the first term. In courses that continue throughout the session credit not exceeding fifty per cent. of the final marks may be assigned to the January examinations.

### April Examinations

14. Final examinations are held in the last week of April. Intramural students must take these examinations in all the courses and half-courses in which they are registered in the second term. (See Regulation 7.) Permission to postpone Pass examinations until September may be obtained in special cases but only upon the recommendation of the Professors concerned. Honour examinations may not be postponed. Examination Time-tables are issued each year in March.

### Final Examinations for Honours

15. A candidate for the degree of B.A. with Honours must at the close of his final year pass written and oral examinations on the whole field of his Honour work.

### September Examinations

16. Supplemental examinations are held in September in all courses open to Pass students. Honour examinations are given in the Honour courses offered during the summer, and students who failed in these courses in January or April may write in September with the consent of the departments concerned and of the Committee on Studies. Other supplemental Honour examinations may be given in September with the consent of the Committee on Studies, if recommended by the Departments concerned.

17. No student is permitted to take a Supplemental examination in any course or half-course in which he had made less than fifteen per cent. at the previous examination.

### Admission to Examinations

(See also Regulations 3, 14, 16, and 17)

18. Students will not be permitted to write on examinations unless they have registered at the prescribed date within the academic year in which they present themselves. (See REGISTRATION.) But graduates not in attendance who wish to take examinations merely to raise their standing may delay their registration till February 14, if applying to write at a new centre, or till March 1, if writing at an established centre.

19. At the specified date (see pages 5 and 6) before the April and September examinations begin, each candidate must apply to the Senate for permission to write on the subjects in which he desires to be ex-

amined. Printed forms for the purpose may be obtained from the Registrar.

20. No candidate will be allowed to appear at an examination unless his application has been approved by the Senate and his examination fees have been paid.

21. No candidate will be admitted to the examination hall later than thirty minutes after the beginning of the examination.

22. No candidate will be permitted to take any books or papers into the examination hall except by express direction of the examiner.

### Determination of Standing

23. In determining a student's standing at a sessional examination the Departments are entitled to take into account the entire class record.

24. The following percentages are required for the various grades of Pass and Honour standing in all courses:

#### PASS STANDING

<i>Division I</i> .....	70 per cent. and over.
<i>Division II</i> .....	55 to 69 per cent.
<i>Division III</i> .....	40 to 54 per cent.

#### HONOUR STANDING

<i>Class I</i> .....	75 per cent. and over.
<i>Class II</i> .....	66 to 74 per cent.
<i>Class III</i> .....	50 to 65 per cent.

## COURSES OF STUDY LEADING TO THE DEGREE OF B.A.

### THE NEW SYSTEM OF STUDIES

During the session 1918-1919 the Faculty of Arts made extensive changes in the system of studies, partly to secure greater flexibility and convenience, but chiefly to increase educational efficiency. The following are the main features of the new system:

1. A teaching week of six days, with lecture periods in the morning,<sup>1</sup> laboratory periods in the afternoon, and Saturday afternoons free. About half the classes meet on Mondays, Wednesdays, and Fridays, and the rest on Tuesdays, Thursdays, and Saturdays.

2. A class unit<sup>2</sup> of three hours in lecture or recitation classes and of four or five hours in Science classes having laboratory work.

3. A session of two terms with "courses" and "half-courses," and mid-session examinations. Some classes, including the first two years' work in each subject, will continue throughout the session and will be called "courses"<sup>3</sup>; other classes will be offered only for a single term and will be called "half-courses." The mid-year examinations in half-courses of the first term will be final except as hereinafter provided in the case of Honour students. In the detailed prescriptions of work in each Department, the "courses" are indicated by numbers alone (as 1, 2) and the "half-courses" by numbers followed by the letter *a* or *b*, according as they are given in the first or second semester (as 5a, 6b). When the amount of work to be done by a student is defined in courses, it is to be understood that an equivalent in courses and half-courses may be offered. Thus while the requirement for a Pass degree is nineteen

<sup>1</sup>Discussion or seminar classes may be held in the afternoon or evening under the following conditions: (a) They shall be confined to Honour courses or to such advanced courses as are common to Pass and Honour men, (b) They shall be regarded as two-hour periods and each shall take the place of two regular morning lectures, (c) They shall be arranged at times to suit the convenience of the students concerned, (d) The seminar meetings in each Department shall be arranged at such intervals that no student will attend oftener than once a fortnight.

<sup>2</sup>Each unit demands from the average student about eight hours' time each week, including lectures, laboratory, home and library work. Instructors in course A or 1 of a language may require the whole or part of their class to attend for a fourth hour in the afternoon.

<sup>3</sup>Throughout this calendar the word "course" is employed with the meaning given above as well as with the wider meaning of a programme of studies leading to a degree or certificate. To avoid confusion, the word will be written with an initial capital when used in the second sense.

courses, a student may qualify by taking, say, twelve courses and fourteen half-courses.

4. Greater concentration than in the past. Each Pass student must take five courses in one subject to be known as his Major and four courses in a related subject to be known as his minor. An Honour student must take twelve courses in his two special subjects with ordinarily a minimum of five in one of them.

5. More private work than heretofore. Under the new system, though the number of courses is increased, the total number of hours to be spent in the lecture room is reduced. The intention is to give the student more time for reading and thinking. To this end, also, one<sup>1</sup> course to be studied privately is prescribed for each student as part of his Major or Honour work.

6. A higher standard for Honours. Hereafter Honour men in the advanced courses which they may have in common with Pass men must do more work and pass different and harder examinations; and at the end of their period of study they must pass a final examination on the whole field of their two special subjects.

The new system of studies went into effect on October 1, 1919, and applies to all entering the University on or after that date. Those, however, who have partly completed their work for a degree will be allowed to finish under conditions similar to those in existence when they entered. They will be allowed the advantages of the new system and assigned proper equivalents for the uncompleted work of the old system. A detailed statement concerning equivalents will be found in connection with each Departmental announcement, but the general principles are given below. Specific difficulties will be adjusted by the Committee on Studies.

*Equivalent for Pass Classes of the old System.* Courses 1 and 2 in each subject under the new system may be substituted respectively for the Junior and Senior classes of the old system. A student who has to satisfy the requirement of "any two Pass classes" under E (Calendar, 1919-20, pages 84, 85, 86) may freely substitute any courses for which his previous work makes him eligible.

<sup>1</sup>The courses for private study are numbered 9 or 99, according as they are for Pass or Honour students. These are not seminar courses; the student is thrown almost entirely on his own resources, and at the most will receive from his instructors only occasional general directions. The amount of work required is the same as in a lecture course and examinations are held at the regular periods. The instructor concerned, however, is free to attach any value he pleases to reports, theses, and the like.



*Equivalent for Honour Classes of the old System.* In the old system an Honour class was regarded as the equivalent of two Pass classes. A Pass student, therefore, needing an Honour class to complete his work under the old system will now choose two Pass courses in the same subject and an Honour student will choose two Honour courses. In many subjects Pass and Honour men will take the same lectures, but as the Honour men must do more reading and write on different examinations, each student must upon registration in an advanced course indicate whether he is taking it as a Pass or an Honour course. If such statement is not made, it will be assumed that Pass work is intended. Students will note that while it is necessary to take two courses under the new system as the equivalent of an Honour class under the old, the work need not all be done in the same year; one course or one and a half courses may be taken in one session and the rest in another.

### SYNOPSIS OF COURSES

The following Courses of Study are outlined in the succeeding pages:

- I. Pass and Honour Courses leading to the degree of B.A.
- II. Courses for Teachers' Certificates in the Province of Ontario.
- III. Research Courses in Biology, Biochemistry, and Bacteriology.
- IV. Course in Commerce and Administration.
- V. Combined Course in Arts and Medicine.
- VI. Combined Course in Arts and Applied Science.

### I. REQUIREMENTS FOR THE DEGREE OF BACHELOR OF ARTS

#### 1. Pass and Honour Courses and Degrees

A candidate for the degree of B.A. may take a Pass Course or an Honour Course. The latter requires greater concentration and higher standards in the advanced work of the special subjects.

The Departmental announcements are found on page 72, sqq. In courses 1 and 2 (1, 2, and 3 in History) Pass and Honour students are not differentiated except in Mathematics. Other courses numbered under 10 are open to Pass students only. Courses numbered 10 and upwards are open to Pass and Honour students unless specifically limited to the latter. When such courses are taken in common, Honour students are required to do more work and to pass harder examinations.

All students must select their courses in accordance with the regulations for concentration, distribution, and sequence of work.

## 2. Amount and Quality of Work

*A. Pass Degree.* A candidate for the Pass degree of B.A. must extend his work over four years from Pass Matriculation. He must pass in nineteen courses with a minimum of forty per cent. in each and with not less than fifty-five per cent. in ten of them. A student who fails in an Honour course may count it towards a Pass degree if he makes forty per cent.

*B. Honour Degree.* A candidate for the Honour degree of B.A. is advised to spend five years from Pass Matriculation. Except with the permission of the Department concerned, he may not begin the Honour work in either of his two special subjects unless he has made at least fifty-five per cent. in the preceding course. This regulation, however, does not prevent a Pass student with lower standing from taking an advanced course for credit towards a Pass degree. A candidate for Honours must pass in twenty courses with a minimum of forty per cent. in each, and must make a minimum of fifty per cent. in each Honour course with an average of sixty-six per cent. in the Honour work of each special subject. In addition, at the close of his final year, he must pass written and oral examinations on the whole field of his Honour work.

## 3. Concentration of Work

*A. Pass Degree.* Each candidate for a Pass degree shall take at least \*five courses in one subject to be known as his Major and at least four courses in a related subject to be known as his Minor. One of the courses of the Major shall consist of prescribed private work to be done

\*When the Major and Minor or Honour subjects belong to Group III (see the next section) and require two or three courses in other subjects as a pre-requisite (as Geology, Mineralogy, and Biology require Chemistry), they shall be reduced by the amount of work that must be taken beyond one course in the pre-requisite studies. In accordance with this regulation the University will award Honours in Science on the following special Course for Teachers:

English 1, 2

Greek, French, or German 1

Greek, French, or German 2; or Latin; or Spanish (by special permission)

Philosophy 1 or 2

One other course from Group II (see the next section)

Mathematics 1, 2

Physics 1, 2, and an advanced course.

Chemistry 1, 2, and an advanced course.

Biology 1, 2, and an advanced course

Another advanced course in Physics, Biology, or Chemistry

Geology 1

Mineralogy 1

in the third or fourth year or half in the third year and half in the fourth year.

*B. Honour Degree.* Each candidate for Honours must take at least \*twelve courses in two related subjects of which all but the first two in each subject shall be Honour courses (that is, chosen from the group numbered upwards from 10 in the departmental announcements). Ordinarily a candidate must take at least five courses in one subject, but with the consent of the departments concerned he may make the minimum four. One of the Honour courses is to consist of private work and is to be in the subject chiefly emphasized. If, however, a student takes six courses in each of his two special subjects, he may choose his reading course from either.

A student wishing to change from Pass to Honour work may count towards the required number of Honour courses as many as two advanced Pass courses in his special subjects if he has made in each a minimum of seventy per cent.

#### 4. Distribution of Work

The subjects offered at the University are divided into three Groups. Though any one of these subjects may be included in the work for a degree, and, with the exception of Italian and Scandinavian, taken as a Minor, Major, or Honour study, yet a minimum number of courses, indicated below in italics, must be selected from each of the three Groups in order that the student may make the acquaintance of studies representing different aspects of knowledge.

<i>Group I</i>	<i>Group II</i>	<i>Group III</i>
LANGUAGE AND LITERATURE	PHILOSOPHY, HIS- TORY, POLITICAL & ECONOMIC SCIENCE	MATHEMATICS AND SCIENCE
<i>English 1 and 2</i>	<i>Philosophy 1 or 2</i>	<i>Mathematics 1</i>
<sup>1</sup> <i>Latin 1 and 2</i>	<sup>4</sup> Two of	<sup>4</sup> Two of
<sup>2</sup> One of	<i>Philosophy 1</i>	<i>Physics 1</i>
<i>Greek 1 and 2</i>	<i>Philosophy 2</i>	<i>Physics 2</i>
<i>German 1 and 2</i>	<i>History 1</i>	<i>Chemistry 1</i>
<i>French 1 and 2</i>	<i>History 2</i>	<i>Chemistry 2</i>
	<i>History 3</i>	<i>Biology 1</i>
Hebrew	<i>Economics 1</i>	<i>Biology 2</i>
<sup>5</sup> Spanish	<i>Economics 2</i>	<i>Geology 1</i>
<sup>5</sup> Italian		<sup>3</sup> <i>Mineralogy 1</i>
Scandinavian		

<sup>1</sup>A student whose Major and Minor are in Group II will not be required to take Latin 2; a student whose Honour subjects are in Group II may omit either Latin 2 or Mathematics 1; a student whose Major and

### 5. Sequence of Work

In each of his second, third, and fourth years a student must have his programme of work approved by the Committee on Studies.

The courses in each subject must be taken in the order prescribed in the Departmental announcements. Ordinarily course 1 is pre-requisite to course 2 and course 2 is pre-requisite to all other courses, but slight variations from this order are permitted by the Departments of English, History, Economics, Philosophy, and Mathematics.

#### *First Year*

A student entering with Pass Matriculation shall take the following five\* courses in his first year:

1. Latin 1 (But those choosing their Major and Minor or Honour subjects from Group III must take Physics 1 instead of Latin 1. The latter may be taken later as an option.)
2. Greek 1, German 1, or French 1
3. English 1
4. Mathematics 1
5. A Science or a third foreign language. (Those choosing a third foreign language as one of the two special subjects must take it at this point; all others should select a Science course, and those specializing in Group III should take Chemistry 1.)

Students will note that no course in Group II may be taken by a Pass Matriculant in his first year.

Minor or Honour subjects are in Group III may omit Latin or take it as an optional subject.

<sup>2</sup>A student whose Major and Minor or Honour subjects are in Group II or Group III may, upon giving sufficient reason, obtain special permission to substitute a course in another language for course 2 in Greek, German, or French. Latin, however, may be substituted without permission.

<sup>3</sup>Mineralogy may be taken only by students who have had matriculation Chemistry or Chemistry 1 or are taking Chemistry 1 concurrently.

<sup>4</sup>An Honour student not specializing in this Group may omit one of these courses.

<sup>5</sup>Spanish and Italian may not both be counted towards a degree, but with the consent of the Department of Spanish, students taking a Major or Honours in Spanish may substitute Italian 1 for one of their lecture courses in Spanish.

\*Students in their first or second years who are unable to carry the required five courses may, with the consent of the Committee on Studies, take three or four in the winter and the rest extra-murally in the summer, provided that they attend the Summer School.



Students requiring for any purpose a certificate of having completed the first year's work must take the following five courses: (1) Latin 1; (2) Greek 1, German 1, or French 1; (3) English 1; (4) Mathematics 1; (5) Physics 1 or Chemistry 1 or Spanish 1 or another of the courses named in (2).

Intra-mural students without matriculation in any of the languages must take the Preparatory course in that language. See regulations regarding Preparatory courses (page 55).

#### *Second Year*

A student in his second year shall take \*five courses; he shall continue at least two subjects of his first year and include at least one subject from Group II.

#### *Third and Fourth Years*

A student intending to graduate in four years must in his third and fourth years take the remaining courses of his Minor, Major, or Honour subjects and such additional prescribed or optional work as may be necessary to satisfy the requirements for a degree—nineteen courses for a Pass student and twenty for an Honour student.

Specimen plans of work are given below, but subject to the regulations regarding Sequence of Work they may be modified to suit individual convenience. The two related subjects on which each student must concentrate need not be in the same Group.

### PASS

#### *Plan I. Special work in Group I.*

##### *First Year*

1. Latin 1
2. Greek 1, French 1, or German 1
3. English 1
4. Mathematics 1
5. Science (\*or a third foreign language)

##### *Second Year*

- Latin 2
- Greek 2, French 2, or German 2
- English 2 (\*or a third foreign language)
- Course from Group II
- Science (\*or a third foreign language)

##### *Third Year*

1. Major from Group I
2. Minor from Group I
3. Course from Group II
4. Course from Group II
5. Any course

##### *Fourth Year*

- Major from Group I
- Major from Group I
- Minor from Group I
- Any course

\*If a third foreign language (Spanish, Hebrew, or a second from the group of Greek, French, and German) must be taken in the first year because it is one of the special subjects, it will replace Science. In that case it may be continued in the second year in the place of English 2 or Science, and the subjects so postponed may be taken in the place of "Any course" in the third and fourth years.

*Plan II. Special work in Group II.**First Year*

1. Latin 1
2. Greek 1, German 1, or French 1
3. English 1
4. Mathematics 1
5. Science

*Second Year*

- Major from Group II  
 Major from Group II  
 Minor from Group II  
 Greek 2, German 2, or French 2;  
 or Latin 2  
 English 2 or Science

*Third Year*

1. Major from Group II
2. Minor from Group II
3. Minor from Group II
4. Any course; or course in Minor\*
5. Science or English 2

*Fourth Year*

- Major from Group II  
 Major from Group II  
 Minor from Group II  
 Any course

*Plan III. Special work in Group III.**First Year*

1. Physics 1
2. Greek 1, German 1, or French 1
3. English 1
4. Mathematics 1
5. Chemistry 1

*Second Year*

- Greek 2, German 2, or French 2;  
 or Latin 1 or 2  
 English 2\*  
 Course from Group II  
 Major from Group III  
 Minor from Group III

*Third Year*

1. Course from Group II
2. Major from Group III
3. Minor from Group III
4. Any course; or course in Minor\*
5. Any course

*Fourth Year*

- Course from Group II  
 Major from Group III  
 Major from Group III  
 Minor from Group III

## HONOURS

An Honour student who wishes to complete his work in four years will take courses in his special subjects where Major or Minor courses appear in the above plans and a fifth course in his fourth year. To find room for the required twelve courses in his two special subjects, he will often find it necessary to avail himself of the privilege of omitting a course from Group II and a course in Science (see Regulations for Distribution) and to substitute for these and for "any course" work in his Honour subjects.

\*If the Major and Minor are subjects not begun in the first year, nine hours must be given to them in the third year. If Chemistry 2 is needed as a pre-requisite, it must be taken in place of English 2 in the second year and the latter postponed till the third year.

## II. ACADEMIC REQUIREMENTS FOR TEACHERS' CERTIFICATES IN THE PROVINCE OF ONTARIO

(Agreement of 1920)

### I. Ordinary Certificates

The academic standing for admission to the professional Course leading to an ordinary High School Assistant's certificate is a degree in Arts from a British University based upon Courses approved by the Minister of Education.

### II. Specialists' Certificates

Subject to the conditions specified below, the academic standing for admission to the professional Courses leading to High School Specialists' certificates in

Greek and Latin	French and German or Spanish
English and History	Mathematics and Physics
English and French	Science <sup>1</sup>
English and German or Spanish	

is an Honour degree in Arts from one of the following Universities: Queen's University, the University of Toronto, McMaster University, Western University.

1. The Courses in the Departments specified above shall be the Honour Courses<sup>1</sup> as defined in the calendars of the respective Universities for the year 1920-21. After due notice from any one of the four Universities, the Minister may accept modifications of its Courses<sup>2</sup> for Specialist standing.

2. Honour degrees in Arts from other British Universities on Courses which are deemed to be the equivalent of those prescribed in the calendars of the four Ontario Universities may be accepted for Specialist standing.

3. The Courses shall extend over at least five years from Junior Matriculation or, as may be determined by the regulations of the University concerned, over four years from Honour Matriculation.

<sup>1</sup>Students who desire a Specialist's certificate in Science should take the Honour Course in two of Physics, Chemistry, and Biology, or the special Course for Teachers outlined on page 61.

<sup>2</sup>The Commercial Specialist option in the Courses in Commerce and Administration in Queen's University is accepted as the non-professional qualification for a Commercial Specialist's certificate. For further particulars, consult the ANNOUNCEMENT OF THE COURSES IN COMMERCE AND ADMINISTRATION, of which copies may be obtained from the Registrar.

4. Candidates shall attend for at least two full academic years. Under the direction of the University they may substitute for one of those years at least two Summer sessions.

5. The standard for each year shall be that prescribed by the University for candidates taking Honour Courses, with the additional provision that in the Final Honour work of the department in which Specialist standing is sought, the standard shall be at least Second Class Honours (66%). [This regulation, as phrased, assumes a year-system. The Department of Education, however, approves the methods of determining Honour standing which are employed at this University.]

6. The Minister shall have authority to deal with any case not covered under the above. Each University shall submit a recommendation to the Minister on any case whose merits justify special consideration.

### III. Inspectors' Certificates

The academic qualifications for an Inspector's certificate under the new agreement may be learned upon application to the Registrar at the beginning of the session 1921-22.

### III. RESEARCH COURSES IN BIOLOGY, BIOCHEMISTRY, AND BACTERIOLOGY

Each of the Courses outlined below leads to the degree of B.A. with Honours in Science, subject to the general regulations for an Honour degree.

Though the work is arranged in years, the order of the courses may be modified to suit individual convenience.

Between the third and fourth sessions three months of supervised research are required.

#### *First Year (all three Courses)*

1. English 1
2. Mathematics 1
3. Medical Chemistry 1
4. Physics 1
5. Biology 1

#### *Second Year (all three Courses)*

- English 2
- French 1 or German 1
- Medical Chemistry 2
- Physics 2
- Biology 2

#### *Third Year*

The courses named in one of the following three special fields of study:

*Biology:* French or German or Scandinavian; course from Group II (see page 62; Bacteriology 1; two courses in Biology.

*Biochemistry:* French or German; course from Group II (see page 62); Bacteriology 1; two courses in Chemistry.

*Bacteriology:* French or German; course from Group II (see page 62); course in Chemistry; two courses in Bacteriology.



*Fourth Year*

The courses named in the field of study selected in the third year:  
*Biology*: course from Group II; Physical Chemistry; course in Chemistry; two courses in Biology.

*Biochemistry*: course from Group II; Advanced Physiological Chemistry; Physical Chemistry or Bacteriology; Physiology of Plants or Animals.

*Bacteriology*: course from Group II; course in Biology; course in Chemistry; two courses in Bacteriology.

**IV. COURSES IN COMMERCE AND ADMINISTRATION**

These Courses were established in 1919 to assist in meeting the need which exists in Canada of more systematic training for business and public service. The Courses are given in the Faculty of Arts, and provide a training in general Arts subjects in addition to the requirements in Economics and in commercial and administrative problems.

Entrance on any of the Courses is governed by the general regulations for admission to the Faculty of Arts, with the exception that Pass or Honour matriculation standing in High School commercial subjects may be substituted for corresponding standing in Latin.

The Courses lead to the degree of Bachelor of Commerce (B.Com.), normally in four years from Pass matriculation. The candidate must take nineteen full courses or their equivalent in full and half-courses, of which nine are to be chosen from general Arts subjects, and ten from Economic and commercial and administrative subjects. As the B.A. and B.Com. requirements may cover much common ground, it is possible for a student holding a B.A. degree, who has taken a Major in Economics, to obtain the B.Com. degree by a year's satisfactory work in the Arts subjects previously omitted provided that the regular B.A. requirements as to matriculation have been fulfilled. The degree of M.Com. is awarded for a fifth year's work of more intensive character. Practical experience in approved establishments during one or more summer vacations is a requisite.

Six optional courses or suggested combinations have been drawn up—General Business, Banking and Finance, Accounting and Auditing, Commercial Specialist, Foreign Trade and Public Service. The Institute of Chartered Accountants of Ontario exempts students who have taken the Accounting option from part of the examination and apprenticeship requirements for admission to standing as a Chartered Accountant. The Commercial Specialist option is accepted by the Department of Education of Ontario as fulfilling the non-professional requirements for a Commercial Specialist certificate, subject to the general regulations embodied in the Agreement as to Specialists' standing.

Tuition fees, for the present, will be the same as required of other students in Arts.

The Courses in Banking established in 1914 by Queen's University in co-operation with the Canadian Bankers' Association will hereafter be continued as part of the Courses in Commerce and Administration.

For further particulars, consult the statement of work offered in 1921-22 by the Department of Political and Economic Science or the ANNOUNCEMENT OF THE COURSES IN COMMERCE AND ADMINISTRATION, of which copies may be obtained from the Registrar.

## V. COMBINED COURSE IN ARTS AND MEDICINE

*A course leading to the Degrees of B.A. and M.D. in seven years.*

Students taking this Course are required to register for the first two years in Arts alone and to pay the class, laboratory, and registration fees in Arts; to register for the third and fourth years in both Arts and Medicine, paying the registration fees only in Arts and the medical fees in full; and in the last three years to register in Medicine alone, paying the medical fees in full for those years.

Candidates for the degrees of B.A. and M.D. in the Combined Course should indicate that fact upon their first registration.

Arts courses are subject to the regulations in the Arts calendar and the courses in Medicine to the regulations in the Medical calendar.

Students in this Course will note that only the two years in Arts may be taken extra-murally. The laboratory work in Physics, Chemistry, and Biology must be done at the University.

The degree of B.A. will be conferred upon students who in the nineteen courses required make a minimum standing of forty per cent., with at least fifty-five per cent. in half their work.

The degree of M.D. will be conferred upon students who in addition to the courses specified below take the full medical work of the fourth, fifth, and sixth years in Medicine. The fifth year of the Combined Course is the fourth year in Medicine.

### *First Year*

English 1  
French 1 or German 1<sup>1</sup>  
Mathematics 1  
Chemistry 1  
Physics 1

### *Second Year*

English 2  
French 2 or German 2 or Latin 1  
Chemistry 2  
Physics 2 or 2nd year Medical  
Biology (1st year Medical)

<sup>1</sup>A fully matriculated student desiring to begin another language may offer the Preparatory and First Year courses in one of these languages in stead of courses 1 and 2.

*Students who have completed the first or second years of the old Combined Course should consult the Registrar at once regarding their transfer to the new Course.*

### *Third Year*

Anatomy  
Histology  
Embryology  
Organic Chemistry or 2nd year  
Medical  
One course from Group II (see  
page 62), excluding Philoso-  
phy 1

### *Fourth Year*

Physiology  
Physiological Chemistry  
Anatomy  
Course from Group II, excluding  
Philosophy 1

### *Fifth Year*

Psychology

## VI. COMBINED COURSE IN ARTS AND APPLIED SCIENCE

*A course leading to the Degree of B.A. and B.Sc. in six years.*

Students taking this Course are required to register for the first two years in Arts alone and to pay the class and registration fees in Arts; to register for the second two years in both Arts and Applied Science and to pay both registration fees and the Applied Science class fees; and to register for the last two years in Applied Science only, paying registration and class fees. Arts classes are subject to the regulations in the Arts Calendar and Applied Science classes to the regulations in the Applied Science Calendar; but the regulations of the Faculty of Applied Science concerning students who fail to pass their classes will apply to this Course throughout.

The courses must be taken in the order in which they are laid down in the Calendar.

The degree of B.A. will not be granted on this Course for less than four years' work.

Subjects numbered in Roman numerals are taken in the Faculty of Applied Science.

*First Year*

1. English 1
2. French 1 or German 1
3. Mathematics I and II
4. Chemistry 1
5. Physics 1

*Second Year*

- English 2  
 French 2 or German 2; or Latin,  
 Greek, or Spanish  
 Course from Group II<sup>1</sup> (see page  
 62)  
 Course from Group II  
 Any course not covered by the later  
 courses in Science<sup>2</sup>

*Third Year*

1. Course from Group II<sup>1</sup>
2. Any course not covered by the  
 later courses in Science<sup>2</sup>
3. Mathematics III and IV
4. Astronomy I
5. Surveying I
6. Drawing I
7. Projections.

*Fourth, Fifth, and Sixth Years*

The fourth, fifth, and sixth years are the same as the second, third, and fourth years of the B.Sc. Courses. See the Calendar of the Faculty of Applied Science.

<sup>1</sup>Philosophy 1 or 2 must be included among the courses taken from Group II.

<sup>2</sup>One of the optional courses of the second and third years shall be a language course; or a half-course in French or German together with any other half-course in Arts. Among the language courses that may be offered are courses A and 1 in French or German.



## DETAILS OF COURSES OF INSTRUCTION

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### LATIN LANGUAGE AND LITERATURE

PROFESSOR—Richard Orlando Jolliffe, Ph.D.

PROFESSOR OF CLASSICS—George W. Mitchell, M.A.

LECTURER—L. G. Keill, M.A.

TUTOR—W. A. Irwin, M.A.

#### GENERAL NOTICE TO STUDENTS IN LATIN

A good Latin dictionary is an absolute necessity. For the Pass classes, Smith's *Smaller Latin-English Dictionary* (Murray) or Lewis' *Latin Dictionary for Schools* (Oxford Press) is recommended. Honour students should procure Harper's *Latin Dictionary* (American Book Co.). All students should provide themselves with a Classical Dictionary—Smith's *Smaller Classical Dictionary* (Everyman's Library) is convenient and cheap—and a Classical Atlas (*Atlas of Classical Geography* in Everyman's Library or Murray's *Classical Atlas*). A history of Latin literature is indispensable: Mackail's *Latin Literature* (Murray) is recommended. For any advanced work a good grammar such as that of Gildersleeve and Lodge or of Allen and Greenough will be found essential. Gow's *Companion to School Classics* (Macmillan) is a useful general handbook. Honour students should also consult the Cambridge *Companion to Latin Studies*.

**PROSE COMPOSITION.** Students taking Latin as their Major or Minor, and Honour students in their first year will use Allen's *Latin Exercise Book* (Oxford Press).

**SIGHT TRANSLATION.** The best preparation for translation at sight consists in the careful and honest reading of the prescribed texts without the aid of a translation.

#### REGULATIONS

1. A Minor in Latin consists of four courses: 1, 2, 18a, 20b, 19a, 21b.
2. A Major in Latin consists of five courses: 1, 2, 18a, 20b, 19a, 21b, 9a-b.
3. For Honours in Latin a student will take courses 1 and 2 and from three to five other courses, among which 10b, 18a, 20b, 19a, 22a, 21b must be taken, and 99a-b if the reading course is in Latin.
4. The courses corresponding to the old Preliminary Honours are 10b, 18a, 20b, 19a; and to the old Final Honours are 20b, 19a, 22a, 21b.

5. Extra-mural instruction will be given in courses marked \*, viz.: 1, 2, 10b, 18a, 20b, during the term, and in courses 1 and 2 during the summer. Exercises in prose composition will be assigned on registration.

#### COURSES OF INSTRUCTION

**LATIN A. PREPARATORY COURSE.** This class will read the texts prescribed for Pass Matriculation. For grammar and composition Mitchell's *Introduction to Latin Prose* (Revised Edition, Macmillan) will be used.

**\*LATIN 1. TRANSLATION AND INTERPRETATION of Prescribed Texts, Sight Translation, Prose Composition.**

*Note.*—The examination will be divided into three sections corresponding to the above. Students must satisfy the examiners in each of the three sections of the paper.

**Prescribed Texts:**

Petrie's Latin Reader with Introduction (Oxford Press): Selections from Nepos, Caesar, Cicero, Livy, Virgil, Horace and Ovid.

Sight Translation of passages similar in style and difficulty to the prescribed texts.

Prose Composition based on the prescribed texts and on Mitchell's *Introduction to Latin Prose* (Revised Edition, Macmillan).

Sec. A: *Monday, Wednesday and Friday at 10.*

Sec. B: *Tuesday, Thursday and Saturday at 10.*

Professor Jolliffe, Professor Mitchell.

**\*LATIN 2. TRANSLATION AND INTERPRETATION of Prescribed Texts, Sight Translation, Prose Composition.**

*Note.*—The examination will be divided into three sections corresponding to the above. Students must satisfy the examiners in each of the three sections of the paper.

**Prescribed Texts:**

Sallust, *Catiline* (Summers, Pitt Press).

Virgil, *Aeneid VI* (Sidgwick, Pitt Press).

Cicero, *In Catilinam II, IV* (Upcott, Oxford Press).

Sight Translation of passages similar in style and difficulty to the prescribed texts.

Prose Composition based on the prescribed texts and on Mitchell's *Introduction to Latin Prose* (Revised Edition, Macmillan).

*Tuesday, Thursday and Saturday at 11.*

Professor Jolliffe, Professor Mitchell.

LATIN 9 a-b.—Reading course for Pass students taking Latin as a Major.

\*LATIN 10b. ROMAN HISTORY.

A rapid survey of early civilization, based on the first two Parts of Breasted, *Ancient Times*. A general account of the history and culture of Rome, down to the extinction of the Empire in the West, 476 A. D.

The manuals recommended are Shuckburgh, *History of Rome*, or Pelham, *Outlines of Roman History*, and Stuart Jones, *Roman Empire*.

*Tuesday, Thursday and Saturday at 10.* Professor Callander.

LATIN 11a. Cicero, *The Orations*. Text: Allen and Greenough's Revised Edition (Ginn & Co.).

Not given in 1921-22.

LATIN 12b. Horace, *Satires* and *Epistles*. The topics chiefly studied will be (a) the history of *Satire* as a literary form; (b) the personality of the poet; (c) his philosophy of life.

Not given in 1921-22.

LATIN 13a. Tacitus, *Agricola* and *Germania*.

Not given in 1921-22.

LATIN 14b. Terence, *Adelphi* (Ashmore, Macmillan).

Not given in 1921-22.

LATIN 17a. Livy, Books I, IX, XXI, XXII. Lectures will be given on (a) Livy as a stylist and as a historian; (b) the regal period; (c) the conquest of Italy; (d) the struggle between Rome and Carthage for the commercial supremacy of the Mediterranean world.

Not given in 1921-22.

\*LATIN 18a. Virgil, *Aeneid*. About 3000 lines will be selected for intensive study. Lectures will be given on (a) the rise of epic poetry and its influence on subsequent forms of literature; (b) magic, taboo and animism in early Roman religion; (c) the influence of the Etruscans and Greeks on the native Roman religion.

*Tuesday, Thursday and Saturday at 10.* Professor Mitchell.

LATIN 19a. Roman History and Roman Private Life. The period of republican decline (133 B.C.-44 B.C.) will be studied in detail, with special reference to its economic and constitutional aspects. The other portion of this course will be devoted to a study of private life, and will deal with the Roman name, education, marriage and divorce, dress, the house and its furniture, burial customs, the social organization and daily routine of Italian life. These topics

will be illustrated from the remains of ancient art, and, in particular, from the remains discovered in Pompeii, Herculaneum and Rome.

*Monday, Wednesday and Friday at 11. Professor Jolliffe.*

\*LATIN 20b. Cicero, *The Letters* (Abbott, Ginn & Co.). This course will illustrate the political movements of the period as well as Cicero's personal and political friendships; it will also afford material for judging the ethical and political principles which he followed in his private and public life.

*Monday, Wednesday and Friday at 11. Professor Jolliffe.*

LATIN 21b. Juvenal's *Satires* and Pliny's *Epistles*. A study of life and manners in the first century of the Roman Empire from two contrasting points of view.

*Monday, Wednesday and Friday at 9. Professor Jolliffe.*

LATIN 22a. Lucretius, *De Rerum Natura*. About 2000 lines will be chosen for intensive study. Lectures will be given on (a) early Greek philosophy; (b) Lucretius and anthropology.

*Monday, Wednesday and Friday at 9. Professor Mitchell.*

LATIN 23a. Virgil, *The Eclogues* and *Georgics*. The topics studied will include (a) the sources and development of pastoral poetry; (b) didactic poetry; (c) Virgil as the poet of Italy.

Not given in 1921-22.

LATIN 24b. Cicero, *De Senectute* and *De Amicitia*.

Not given in 1921-22.

LATIN 25a. Latin Lyric Poetry, Horace and Catullus. Attention will be directed in this course almost entirely to the literary study of the poems and to the illustration of their influence on English poetry.

Not given in 1921-22.

LATIN 26b. Latin Comedy. A brief study of the origin and development of Roman comedy will be supplemented by the rapid reading of the *Captivi* of Plautus and the *Adelphi* and *Phormio* of Terence.

Not given in 1921-22.

LATIN 27a. Martial, *The Epigrams* (Post, Ginn & Co.). This course deals with the fun and foibles of society and with the lighter side of Roman life. Not given in 1921-22.

LATIN 99 a-b. Reading course for Honour students, where required.



## GREEK LANGUAGE AND LITERATURE

PROFESSOR—T. Callander, M.A.

PROFESSOR OF CLASSICS—G. W. Mitchell, M.A.

LECTURER—L. G. Keill, M.A.

### GENERAL NOTICE TO STUDENTS IN GREEK

The *Greek Dictionary* recommended is by Liddell and Scott. A *Greek Grammar*, preferably Goodwin's or Smyth's, is also necessary. Murray's *Classical Atlas*, Jebb's *Primer of Greek Literature*, Maisch's *Greek Antiquities*, and Bury's *History of Greece* are indispensable.

PROSE COMPOSITION. Students taking Greek as their Major or Minor, and Honour students in their first year work, will use Sidgwick's *Greek Prose Composition*.

### REGULATIONS

Greek A may be counted towards a degree and towards a Minor or a Major or Honours under conditions specified in section 9 of GENERAL REGULATIONS, page 55. Students who enter the University without matriculation in Greek, and yet desire to specialize in this subject, may complete their programme of work in the usual time.

For Pass students a Minor in Greek consists of four courses, including 1 and 2; while a Major in Greek consists of five courses, including 1, 2 and 9 a and b.

For Honours in Greek a student must take from five to seven courses, including 1, 2, 10a, 11a, 12b, 13b. If the reading course is in Greek 99 a and b must be taken.

The courses corresponding to the old Preliminary Honours are 10a, 11a, 12b, 13b.

The courses corresponding to the old Final Honours are 12b, 13b, 14a, 15a.

Extra-mural instruction both in winter and in summer will be given in the courses marked with an asterisk, viz.: 1, 2, 10a, 11a, 12b, 13b.

### COURSES OF INSTRUCTION

GREEK A. FOR BEGINNERS. This class will cover the texts prescribed for Pass Matriculation, together with a course in Composition and Greek History.

*Tuesday, Thursday and Saturday at 11.*

## \*GREEK 1.

## 1. TEXTS FOR SPECIAL STUDY:

Robertson's *Greek Reading* (Camb. Univ. Press).  
 Rennie, *Selections from Homer* (Edward Arnold).  
*The Acts of the Apostles*.

## 2. UNSEEN TRANSLATION.

## 3. COMPOSITION.

Pitman, *Greek Prose Composition*.

## 4. GRAMMAR.

Goodwin, *Greek Grammar*.

*Tuesday, Thursday and Saturday at 10.*

## \*GREEK 2.

## 1. TEXTS FOR SPECIAL STUDY:

Euripides, *Alcestis*.  
 Plato, *Apology of Socrates*.  
*The Epistle to the Galatians*.

## 2. UNSEEN TRANSLATION.

## 3. COMPOSITION.

North and Hillard, *Greek Prose Composition*.

## 4. GRAMMAR.

Goodwin, *Greek Grammar*.

## 5. GENERAL READING:

Jebb, *Primer of Greek Literature* and *Introduction to Homer*.  
 Maisch, *Greek Antiquities*.

Bury, *History of Greece*. Every member of the class in Greek 2 should make himself familiar with the outlines of Greek History at the beginning of his course. Lectures on this subject will be given during the session.

*Monday, Wednesday and Friday at 11.*

GREEK 9 a and b. Reading course for students taking Greek as a Major.

\*GREEK 10a. GREEK HISTORY. Bury, *History of Greece*; as an introduction to the subject the first two Parts of Breasted, *Ancient Times*, should be read. This course, together with a course in Roman History, namely, Latin 10b, is accepted by the History Department as a Pass Class. For students who take Greek 10a or Latin 10b as part of their Honour work, additional reading will be prescribed.

\*GREEK 11a. GREEK EPIC. Intensive reading of certain books of Homer, with rapid survey of the *Iliad* and the *Odyssey* in translation.

- \*GREEK 12b. THE GREEK HISTORIANS. Select texts of Herodotus and Thucydides.
- \*GREEK 13b. GREEK TRAGEDY. A play of Aeschylus, of Sophocles, and of Euripides, with topics of a wider range belonging to this field.
- GREEK 14a. GREEK COMEDY. Two plays of Aristophanes, together with select portions of Menander.
- GREEK 15a. GREEK PHILOSOPHY. Plato's Republic and part of Aristotle's Ethics.
- GREEK 16b. THE ORATORS. Select works of Lysias and Demosthenes.
- GREEK 17b. THE BUCOLIC POETS.
- GREEK 99 a and b. Reading course for Honour students where required.

## SEMITIC LANGUAGES AND LITERATURE

PROFESSOR—Rev. W. G. Jordan, B.A., D.D.

ASSOCIATE PROFESSOR—Rev. H. T. Wallace, B.A., Ph.D.

## GENERAL NOTICE TO STUDENTS IN HEBREW

Students in Hebrew, especially those who purpose to do work in Honours, are recommended to provide themselves with a good lexicon, a critical edition of the Hebrew Old Testament, and, if possible, Cowley's translation of Kautzsch's *Gesenius' Hebrew Grammar* (Oxford, 1910). *The Oxford Hebrew Lexicon* by Brown, Driver, and Briggs is expensive but almost indispensable for advanced students. Kittel's *Biblia Hebraica* is the best moderate-priced critical Hebrew Bible. These books are in the University Consulting Library and, in any case, students are expected to use them regularly as books of reference.

Semitics 1 and 2 will be offered during the session 1921-1922, but any student wishing to enter upon the advanced work must apply for permission and consult the head of the department.

## COURSES OF INSTRUCTION

## SEMITICS 1: ELEMENTARY HEBREW.

1. GRAMMAR AND COMPOSITION: the class lectures; exercises in the first twenty chapters of Davidson's *Hebrew Grammar* (Nineteenth Edition: Revised by J. E. McFadyen; pub. by T. and T. Clark); the Regular Verbs, pp. 208-9.

2. TRANSLATION: *Genesis*, Chapter I; *Psalms*, I and CIII; *I Samuel*, Chapters IX-XI.

## 3. SIGHT TRANSLATION.

*Tuesday, Thursday and Saturday at 8. Professor Wallace.*

## SEMITICS 2: HEBREW.

1. GRAMMAR AND COMPOSITION: the class lectures (one hour a week); exercises in Chapters XX to XXXVIII, inclusive, of Davidson's *Hebrew Grammar* (Nineteenth Edition: Revised by J. E. McFadyen; pub. by T. and T. Clark); the Irregular Verbs, pp. 212-221.

## 2. SYNTAX: the class lectures.

## 3. TRANSLATION.

*Isaiah*, Chapters XL-XLIII.

*Friday at 3. Professor Jordan.*

*II. Samuel*, Chapters XIV-XVIII.

*Monday, Wednesday and Friday at 8. Professor Wallace.*



## SEMITICS 9.

A reading course for Pass students making Semitics their Major subject.

## SEMITICS 10: ADVANCED HEBREW.

- (a) *Grammar*: advanced study of the Hebrew Noun; class lectures on the basis of Cowley's translation of Kautzsch's *Gesenius' Hebrew Grammar* (Oxford, 1910), pp. 79-98.  
*Syntax*: the Syntax of the Noun and Adjective in Hebrew; prescribed sections of Davidson's *Hebrew Syntax*.
- (b) *Composition*: weekly exercises on §§ 38-48 of Davidson's *Hebrew Grammar* and on prescribed pieces of easy English prose.
- (c) *Translation*:
  - (i) as an illustration of the late period of the classical language: *Ecclesiastes, I-VI, Song of Songs*.  
 Professor Jordan.
  - (ii) Hebrew prophetic and poetical literature: *Jonah, Amos*, and selections from *Proverbs*.  
 Professor Wallace.

## SEMITICS 11a: ELEMENTARY ARABIC.

- (a) *Grammar*: introductory outline of the grammar of literary Arabic. Socin's *Arabic Grammar* (English translation) or F. D. Thornton's *Elementary Arabic* (Camb. Univ. Press).
- (b) *Translation*: translation in class of selections from Thornton and Nicholson's *Elementary Arabic, First Reading-Book*, and from the Arabic Bible.

Professor Wallace.

## SEMITICS 12b: BIBLICAL ARAMIC.

- (a) *Grammar*: class lectures on the grammar of the Biblical-Aramaic dialect with reference to the other Aramaic dialects. Marti, *Kurzgefasste Grammatik der Biblischen-Aramäischen Sprache* (Berlin, 1911).
- (b) *Translation*: reading in class of the Aramaic section of the *Book of Daniel* (II: 4b-VII: 28).

Professor Wallace.

## SEMITICS 15: ADVANCED HEBREW.

- (a) *Grammar*: advanced study of the etymology of the Hebrew Verb; class lectures on the basis of Kautzsch: *Gesenius' Hebrew Grammar* (trans. E. A. Cowley—Oxford, 1910), pp. 114-219.  
*Syntax*: study of the Syntax of the Hebrew Verb; prescribed sections of Davidson's *Hebrew Syntax* and of Driver's *Hebrew Tenses*.
- (b) *Composition*: translation into Hebrew of suitable pieces of English prose.

(c) *Translation:*

- (i) careful reading of *Job* I-XI, with emphasis upon the structure of Hebrew poetry.

Professor Jordan.

- (ii) rapid reading of *I Kings* I-IX, and *Psalms* CXX-CXXXIV.  
 (iii) critical reading of *Genesis* XLIX, *Numbers* XXII-XXIV, *Deuteronomy* XXXII and XXXIII, *Judges* V, and of selections from the Prophetic Books.

Professor Wallace.

## SEMITICS 16a: POST-BIBLICAL HEBREW.

- (a) *Grammar*: brief outline of the main differences between classical and post-biblical Hebrew.  
 (b) *Translation*: reading in class of the Mishna Tractate, *The Proverbs of the Fathers* (text by C. Taylor, Cambridge, 1877, or H. L. Strack, Berlin, 1888).

Professor Jordan.

## SEMITICS 18b: SECOND ARABIC COURSE.

- (a) *Grammar*: continuation of the study of Arabic Grammar; introduction to the Irregular Verbs and the Broken Plurals of Nouns, Socin's *Arabic Grammar* (Eng. translation), and F. D. Thornton's *Elementary Arabic*.  
 (b) *Translation*: translation in class of selections from Thornton and Nicholson's *Elementary Arabic, First Reading Book*, and of the Arabic version of the *Book of Genesis*, and of selected *Psalms*.

## SEMITICS 19a: ELEMENTARY ASSYRIAN.

- (a) *Grammar*: elements of Assyrian Grammar particularly with a view to the study of the comparative grammar of the Semitic languages generally.

## SEMITICS 99: READING COURSE for Honour students making Semitics their main subject.

Study of the history of the Hebrew nation from the Exile to the fall of Jerusalem in A.D. 70; general outlines of the history of Babylon, Egypt, and the surrounding peoples in so far as these bear upon the history of the Hebrews.

H. P. Smith, *Old Testament History*.

C. F. Kent, *A History of the Jewish People during the Babylonian, Persian, and Greek Periods*.

J. S. Riggs, *A History of the Jewish People during the Maccabean and Roman Periods*.

P. H. Hunter, *After the Exile* (2 vols.).

## GERMANIC LANGUAGES AND LITERATURES

PROFESSOR—John Macgillivray, B.A., Ph.D.

ASSISTANT PROFESSOR—

### REGULATIONS

1. German A may be counted towards a degree and towards a Minor or a Major or Honours under conditions specified in section 9 of GENERAL REGULATIONS, page 55. Students who enter the University without matriculation in German, and yet desire to specialize in this subject may complete their programme of work in the usual time.

2. The Minor in German consists of four courses or equivalent, including 1, 2, 11a, and 12b.

3. The Major in German consists of five courses or equivalent, including 1, 2, 11a, 12b, and 9.

4. Students making German one of their Honour subjects must take from five to seven courses or equivalent, including 1, 2, 11a, 12b, and 33b. Those who make German their main subject must also take 99.

5. Courses 21a—26b are of a less advanced character than courses 31a—34b.

6. Students with Pass Matriculation in German will begin with course 1. Those with Honour Matriculation will begin with course 2.

7. Extra-mural instruction is offered in all courses except A, B, 3a, and 33b.

8. Students taking a Minor, a Major, or Honours in German are advised to do a considerable amount of reading in summer.

9. Students completing their programme of work under the old system of studies will take for Preliminary Honours the half-courses 11a, 12b, and any two of the half-courses 21a—26b; for Final Honours, any four of the half-courses 21a—34b.

10. The prescriptions given below under courses 11a—34b are for Honour students. Pass students taking any of these courses are not required to read all the works listed. A detailed statement will be issued at the beginning of each course.

11. While the direct method will be more or less used from the beginning, the advanced classes will be conducted mainly in German.

## COURSES OF INSTRUCTION

## A. PREPARATORY GERMAN.

This course is intended to meet the needs of students who, owing to the inadequate conditions in most of the secondary schools, enter the University with little or no knowledge of German. It is taken by students who need to complete their Matriculation, or who desire to pursue a course in which German text-books or works of reference are prescribed or recommended. The requirements correspond generally to those for Pass Matriculation.

The work comprises drill on pronunciation, a study of the elements of grammar, the reading of easy literature, dictation, oral and written composition.

## Text-books:—

Schrag and Alexis, *First Course in German* (Badger).

Volkman-Leander, *Träumereien* (Ginn).

Collmann, *Easy German Poetry* (Ginn).

*Tuesday, Thursday and Saturday at 8.* Professor Macgillivray.

## B. ELEMENTARY SCANDINAVIAN.

The aim of this course is to give the student a reading knowledge of Swedish and Dano-Norwegian, and thus open to him the rich store of modern Scandinavian literature.

A knowledge of German is not required. Students specializing in German, and desiring advanced credit for this work, should register for courses 25a and 26b instead.

## Text-books:—

Elmquist, *Swedish Grammar* (Augustana Book Concern).

Lagerlöf, *Valda Berättelser* (Augustana Book Concern).

Ibsen, *Et dukkehjem* (Gyldendalske Boghandel).

Björnson, *Synnöve Solbakken* (Free Church Book Concern).

*Tuesday, Thursday and Saturday at 10.*

## 1. INTERMEDIATE GERMAN.

The work embraces the reading of modern authors, a more advanced study of grammar and syntax, memorizing of poems, writing from dictation, translation at sight, composition and oral practice.

## Text-books:—

Heyse, *L'Arrabbiata* (Holt).

Storm, *Immensee* (Holt).

Seidel, *Leberecht Hühnchen* (Scribner).



Volkman-Leander, *Träumereien* (Ginn).  
 Collman, *Easy German Poetry* (Ginn).  
 Klee, *Deutsche Mythologie*—selections (Velhagen).  
 Lyon, *Handbuch der deutschen Sprache, I* (Teubner).  
*Tuesday, Thursday and Saturday at 9.*

## 2. ADVANCED GERMAN.

The work consists of a critical reading of modern literature, both prose and verse, oral and written composition based on this literature, and a more advanced study of grammar and syntax.

Text-books:—

Goethe, *Das Märchen* (Heath).  
 Grillparzer, *Der arme Spielmann* (Heath).  
 Heyse, *Der verlorene Sohn* (Wiesbaden), *Vetter Gabriel* (Holt).  
 Smitthenner, *Ad'm, Friede auf Erden* (Wiesbaden).  
 Collman, *Easy German Poetry* (Ginn).  
 Klee, *Deutsche Mythologie* (Velhagen).  
 Lyon, *Handbuch der deutschen Sprache, I* (Teubner).  
*Monday, Wednesday and Friday at 10.*

## 3a. SCIENTIFIC GERMAN.

This course is designed for students who are doing advanced work in Chemistry, Physics, Geology, Mineralogy, Biology, and Anatomy. The reading will be selected to suit the members of the class.

Prerequisite: German A, or Matriculation in German.

Text-books:—

Wait, *A German Science Reader* (Macmillan).  
 Helmholtz, *Populäre Vorträge* (Heath).  
 Du Bois-Reymond, *Wissenschaftliche Vorträge* (Ginn).  
*Monday, Wednesday and Friday at 9.*

## 9. READING COURSE for Pass students taking German as a Major.

### (a) The Literature of the Nineteenth Century.

The following works are read:

Grillparzer, *Sappho* (Macmillan).  
 Hebbel, *Agnes Bernauer* (Heath).  
 Ludwig, *Zwischen Himmel und Erde* (Heath).  
 Freytag, *Soll und Haben* (Ginn).  
 Raabe, *Else von der Tanne* (Oxford Press).  
 Fiedler, *A Book of German Verse* (Oxford Press).  
 Weitbrecht, *Deutsche Literaturgeschichte des neunzehnten Jahrhunderts* (Götschen).

## (b) Contemporary German Literature.

The following works are read:

Fontane, *Grete Minde* (Holt).

Hauptmann, *Vor Sonnenaufgang* (Fischer).

Sudermann, *Frau Sorge* (Holt).

Fulda, *Der Dummkopf* (Holt).

Zahn, *Vier Erzählungen* (Deutsche Verlagsanstalt).

Fiedler, *A Book of German Verse* (Oxford Press).

Weitbrecht, *Deutsche Literaturgeschichte des neunzehnten Jahrhunderts* (Göschel).

## 11a. SCHILLER'S LIFE AND WORKS.

The reading and interpretation of selected dramas, poems, letters, historical and philosophical writings will be accompanied by a rapid survey of the whole classical period, with special emphasis on the Storm-and-Stress movement.

Text-books:—

Lyon, *Schillers Leben und Werke* (Velhagen).

Weitbrecht, *Deutsche Literaturgeschichte der Klassikerzeit* (Göschel).

Schiller, *Kabale und Liebe* (Holt), *Die Jungfrau von Orleans* (Ginn), *Wallenstein* (Holt), *Wilhelm Tell* (Holt), *Poems* (Holt), *History of the Thirty Years' War* (Holt).

Tuesday, Thursday and Saturday at 11.

## 12b. GOETHE'S LIFE AND WORKS.

An outline of the poet's life and time precedes a critical study of his most important dramatic and lyrical productions. (See Departmental regulations, 10, 11).

Text-books:—

Heinemann, *Goethes Leben und Werke* (Velhagen).

Weitbrecht, *Deutsche Literaturgeschichte der Klassikerzeit* (Göschel).

Goethe, *Faust, I* (Hesse), *Iphigenie auf Tauris* (Holt), *Torquato Tasso* (Ginn), *Egmont* (Holt), *Poems* (Holt), *Das Märchen* (Heath), *Novelle, Shakespeare* (Ehlmann).

Monday, Wednesday and Friday at 8.

## 21b. LESSING'S LIFE AND WORKS.

An outline of Lessing's life and time precedes a critical reading of his most important dramatic, dramaturgic, and philosophical works.

Text-books:—

Löschhorn, *Lessings Leben und Werke* (Velhagen).

Franz, *Hilfsbuch zu Lessing* (Velhagen).

Lessing, *Minna von Barnhelm* (Holt), *Emilia Galotti* (Heath),  
*Nathan der Weise* (Ginn), *Hamburgische Dramaturgie*  
 (Holt), *Briefe und Abhandlungen* (Velhagen).

Monday, Wednesday, and Friday at 9.

## 22a. THE GERMAN DRAMA.

The course gives in outline the history and technique of the German drama of the nineteenth century. A number of representative works are studied critically in class.

### Text-books:—

Witkowski, *Das deutsche Drama des 19. Jahrhunderts* (Teubner).

Goethe, *Faust* (Hesse).

Grillparzer, *Des Meeres und der Liebe Wellen* (Oxford Press).

Ludwig, *Der Erbförster* (Holt).

Hebbel, *Herodes und Mariamne* (Holt).

Freytag, *Die Journalisten* (Heath).

Hauptmann, *Die versunkene Glocke* (Holt).

Sudermann, *Heimat* (Heath).

Schnitzler, *Anatol* (Fischer).

Omitted in 1921-22.

## 23b. THE GERMAN SHORT STORY.

The course gives in outline the history and development of the *Novelle*. A number of representative short stories are studied critically, especially from the point of view of technique.

### Text-books:—

Kleist, *Michael Kohlhaas* (Holt).

Keller, *Romeo und Julia auf dem Dorfe* (Holt), *Kleider machen Leute* (Heath).

Meyer, *Gustav Adolfs Page* (Heath).

Riehl, *Die vierzehn Nothelfer* (Ginn).

Storm, *In St. Jürgen* (Heath).

Heyse, *Vetter Gabriel* (Holt), *Der verlorene Sohn* (Wiesbaden).

Baumbach, *Die Nonna* (Heath).

Hoffmann, *Meister Martin der Kufner* (Holt).

Wildenbruch, *Die Rabensteinerin* (Heath).

Monday, Wednesday and Friday at 11.

## 24b. THE GERMAN LYRIC.

The course gives in outline the history of the German lyric in the nineteenth century. A number of representative poets are studied critically in class, and some of their outstanding poems are committed to memory.

## Text-books:—

Spiero, *Geschichte der deutschen Lyrik seit Claudius* (Teubner).

Borinski, *Deutsche Poetik* (Götschen).

Fiedler, *A Book of German Verse* (Oxford Press).

Benzmann, *Moderne deutsche Lyrik* (Reclam).

Bethge, *Deutsche Lyrik seit Liliencron* (Hesse and Becker).

Omitted in 1921-22.

## 25a. SWEDISH.

The course covers the same ground as the first term of course B, which is outlined above, and includes in addition selections from the second volume of *Svensk Diktning*, edited by Mauritzon and Olson (Augustana Book Concern).

Prerequisite: German A and 1, or their equivalent.

*Tuesday, Thursday and Saturday at 10.*

## 26b. DANO-NORWEGIAN.

The course covers the same ground as the second term of course B, and includes in addition Lie's *Selected Stories and Poems* (The Free Church Book Concern).

Prerequisite: Course 25a.

*Tuesday, Thursday and Saturday at 10.*

## 31a. SURVEY OF GERMAN LITERATURE.

A course outlining the history of German literature, including its setting in the political and cultural history of the country. Special stress will be laid on the periods from 1750 to the present time. Assigned readings and reports.

## Text-books:—

Heinemann, *Deutsche Dichtung* (Kroner).

Thomas, *An Anthology of German Literature* (Heath).

*Monday, Wednesday, and Friday at 8.*

## 32a. HISTORY OF GERMANY.

A course outlining the political, social and cultural history of Germany. Assigned readings and reports.

## Text-books:—

Kaemmel, *Werdegang des deutschen Volkes* (Reimer).

Müller, *Geschichte des deutschen Volkes*.

Gunther, *Deutsche Kulturgeschichte* (Götschen).

*Monday, Wednesday, and Friday at 11.*

## 33b. HISTORY OF THE GERMAN LANGUAGE.

This course outlines the origin and evolution of language in general, and of the Aryan languages in particular. The Germanic



family of languages will be stressed, especially Gothic and Old High German. Gothic, as the oldest known member of the family, will be studied philologically in its relation to Low and High German, and these in their relation to each other. For this purpose specimen passages of Gothic, Old Low German, Old High German, Middle High German, and Modern Low German, or Netherlandish, and Scandinavian will be translated into Modern High German.

Text-books:—

Lyon, *Handbuch der deutschen Sprache*, II (Teubner).

Braune, *Gotische Grammatik mit ausgewählten Leseestücken; Althochdeutsches Lesebuch*.

Golther, *Der Nibelunge Nôt* (Göschen).

Marold, *Hautmann von Aue, Wolfram von Eschenbach und Gottfried von Strassburg* (Goschen).

*Tuesday, Thursday and Saturday at 11.*

99. READING COURSE for Honour students making German one of their main subjects.

(a) The Literature of Romanticism.

The following works are read:

Jean Paul, *Leben des Quintus Fixlein* (Cotta).

Tieck, *Ausgewählte Werke* (Hesse).

Hoffmann, *Doge und Dogaresse* (Wiesbaden).

Novalis, *Ausgewählte Werke* (Hesse).

Chamisso, *Peter Schlemihl* (Heath).

Kleist, *Der zerbrochene Krug* (Reclam).

Eichendorff, *Aus dem Leben eines Taugenichts* (Holt).

Fouqué, *Undine* (Holt).

Grillparzer, *Die Ahnfrau* (Holt).

Fiedler, *A Book of German Verse* (Oxford Press).

Walzel, *Deutsche Romantik* (Teubner).

(b) The Literature of Realism.

The following works are read:

Hebbel, *Agnes Bernauer* (Heath).

Freytag, *Soll und Haben* (Ginn).

Fontane, *Grete Minde* (Holt).

Hauptmann, *Vor Sonnenaufgang* (Fischer).

Sudermann, *Der Katzensteg* (Heath).

Schnitzler, *Anatol* (Fischer).

Kretzer, *Meister Timpe* (Fischer).

Frenssen, *Jörn Uhl* (Grote).

Bethge, *Deutsche Lyrik seit Liliencron* (Hesse und Becker).

## ROMANCE LANGUAGES AND LITERATURE

PROFESSOR—P. G. C. Campbell, M.A.

ASSOCIATE PROFESSOR—R. K. Hicks, M.A.

ASSISTANT PROFESSOR—W. M. Conacher, B.A.

FELLOW—Mme. McConnell, B.S., C.A.P.

### FRENCH

#### REGULATIONS

1. French 1 is a prerequisite of French 2 and French 2 of all other courses.

2. Pass students making French their Minor subject will take courses 1, 2, 3 and 4. If making French their Major subject they will add 9 a and b.

3. Honour students taking French as one of their two Honour subjects, after 1 and 2, will take 10, 11a, 13a, 15b, 16b or 17b, 20a, and 12b or 14b. If the emphasis is laid on French, Reading course 99 will be added.

4. The courses corresponding to former Preliminary Honours are 10, 11 a, 15 b.

The courses corresponding to former Final Honours are 12b or 14b, 13a, 16b or 17b, and 20a.

5. Extra-mural instruction is given during the winter in courses 1, 2, 3, 4, 6, 10, 15b, and 20a, and during the summer in 1, 2, and 11a; registration is allowed only in these courses, which will be found marked with an asterisk.

6. Oral examinations must be taken at the University.

#### COURSES OF INSTRUCTION

##### FRENCH A. PREPARATORY FRENCH.

This course, intended for those who have not matriculated in French, takes the student up to the standard of the Ontario Pass Matriculation. The grammar in use is that of Fraser and Squair; the prescribed text is Lavissee, *Histoire de France* (Heath).

Mme. McConnell.

##### \*FRENCH 1. FIRST YEAR FRENCH.

(i) Composition in French, Dictation and Oral Work.

Duhamel and Minssen, *Primer of French Prose Composition* (Rivingtons).

Siepmann, *Short French Grammar* (Macmillan).

NOTE.—The examination in Dictation and Oral Work will take place during the Term in April.

## (ii) Reading, Study and Translation.

Lavissee, *Histoire de France* (Heath).Audoux, *Marie-Claire* (Clarendon Press).Fontaine, *En Douce France* (Heath).Daudet, *Le Petit Chose*, Part I (Macmillan).

Monday, Wednesday, Friday at 9.

Professors Campbell and Conacher.

## \*FRENCH 2. SECOND YEAR FRENCH.

The purpose of this course, which is intended for those who have completed French 1 or its equivalent, is to enable the student to read intelligently and translate accurately, to write French, and to acquire some knowledge of the spoken language. In one of the sections the oral side of the work will be specially stressed.

## Texts:—

Molière, *Le Malade Imaginaire* (Ginn).LaFontaine, *Fables* (Dent).De Vigny, *Cinq-Mars* (Macmillan).Daudet, *Tartarin de Tarascon* (Macmillan).Super, *Histoire de France* (Holt).Comfort, *French Prose Composition* (Heath).Siepmann, *Short French Grammar* (Macmillan),

or (for students intending to take higher courses)

*The Wellington College French Grammar* (D. Nutt).

Extra-mural students will use, instead of Comfort's *Composition*, Duhamel and Minssen, *French Prose Composition for Middle Forms* (Rivingtons).

NOTE.—The oral examination will take place towards the end of April.

Tuesday, Thursday, Saturday, at 10.

Professors Hicks and Conacher.

## \*FRENCH 3. THIRD YEAR FRENCH (Pass).

## (i) Texts:

Molière, *Les Précieuses Ridicules* (Ginn).V. Hugo, *The Poetry of* (Ginn).G. Sand, *La Petite Fadette* (Clarendon Press).Daudet, *Neuf Contes Choisis* (Holt).Mignet, *Histoire de la Révolution française* (Clarendon Press).

## (ii) Translation into French.

Goodridge, *French Composition* (Clarendon Press).*Wellington College French Grammar* (D. Nutt).

- (iii) Literature. A knowledge of the life and thought of Rabelais, Montaigne, Corneille, Molière, Racine, Voltaire, Rousseau, Victor Hugo and Balzac. A Study of the Romantic Movement.

Kastner and Atkins, *Short History of French Literature* (Holt).

- (iv) Essays on subjects dealing with French Literature, History and National Life.

Monday, Wednesday, Friday at 11. Professor Conacher.

\*FRENCH 4. FOURTH YEAR FRENCH (Pass).

- (i) Texts:

Corneille, *Horace*.

Balzac, *Cinq Scènes de la Comédie Humaine* (Heath).

Anatole France, *Le Crime de Sylvestre Bonnard* (Holt).

*La Grande Guerre* (Cambridge University Press).

- (ii) Translation into French.

Goodridge, *French Composition* (Clarendon Press).

Wellington College *French Grammar* (D. Nutt).

- (iii) The Literature of the XVIIIth Century.

- (iv) The French Revolution.

Taine, *L'Ancien Régime*, Books I, II and V (Heath).

FRENCH 5b. SCIENTIFIC FRENCH.

For those who require such a reading knowledge of French as will enable them to read scientific works in French.

W. G. Hartog, *Lectures Scientifiques* (Rivingtons).

Herdler, *Scientific French Reader* (Ginn).

\*FRENCH 6. TEACHERS' COURSE.

This course is only given extra-murally, and carries no credit for a Degree. It is framed to assist the teachers of French who may desire both information and help as regards the latest and most effective methods of teaching French, and also actual assistance in the giving of instruction in the schools. A fuller syllabus will be sent on application.

FRENCH 9a and b. Pass Reading Course for those making French their Major.

\*FRENCH 10.

- (i) First Semester, INTRODUCTION TO THE STUDY OF FRENCH LITERATURE.

The Outlines of French Literature (1630-1850).

Vreeland and Michaud, *Anthology of French Prose and Verse* (Ginn).

Des Granges, *Histoire de la littérature française* (Hatier).

Taine, *L'Ancien Régime*, Books I and V.

Le Petit Larousse Illustré.



## (ii) Second Semester, REALISM and THE WAR.

*Les Silences du Colonel Bramble* (Cambridge Univ. Press).*La Grande Guerre* (Cambridge Univ. Press).*L'Armée française sur le front* (Clarendon Press).*Paris Menacé, Paris sauvé* (Clarendon Press).

*Note.*—In this course a more detailed treatment of some period or movement will be offered in the Second Semester. This latter part may also be taken as a half-course, but only by Fourth Year students (see 16b, 17b). Those registered in French 10 may not divide the course.

*Monday, Wednesday, Friday at 10.* Professor Campbell.

## FRENCH 11 a. PRACTICAL COURSE.

Conversation, composition and prose. Study of maps and pictures.

Assigned readings and reports on France and the French people. Phonetics. The course is conducted in French.

*Pattou, Causeries en France* (Heath).*Bascan, Manuel pratique de prononciation* (Dent).*Duhamel, Advanced French Prose Composition* (Rivingtons).*Barrett Wendell, La France d'aujourd'hui* (Nelson).*The Wellington College French Grammar* (Nutt).

*Tuesday, Thursday, Saturday at 9.* Professor Hicks.

## FRENCH 12b. FRENCH LIFE AND INSTITUTIONS.

This course is a continuation of 11a which is a prerequisite. Lectures and reports. Texts read in other courses will be examined from this particular point of view. Translation into French of selected passages bearing on the subject. The course is conducted in French.

*Kron, French Daily Life* (Dent).

*Monday, Wednesday and Friday at 8.* Professor Hicks.

## FRENCH 13 a. LINGUISTIC COURSE.

The elements of phonology. Phonetics, continuing the work of course 11a. A study of selected passages from the *Chanson de Roland*. The outlines of the early literary history of France.

*G. Paris, La Chanson de Roland* (Ginn).*Bascan, Manuel pratique de prononciation* (Dent).

*Tuesday, Thursday, Saturday at 9.* Professor Campbell.

## FRENCH 14b. OLD FRENCH.

A continuation of 13a, which is a prerequisite. The development of Vulgar Latin into Old French, with emphasis on the stressed vowel and some notice of consonantal change and of the verb-forms. Linguistic study of the *Chanson de Roland*. Other texts

will be read from the literary point of view. This course is intended for students proceeding to the degree of M.A.

G. Paris, *La Chanson de Roland* (Ginn).

Baker, *Outlines of French Historical Grammar* (Dent).

\*FRENCH 15b. FRENCH CLASSICAL TRAGEDY.

Corneille, *Cinna* (Hachette).

Racine, *Bajazet* (Delagrave).

The discussion of these plays will involve the Principles of Literary Criticism, and especially of Dramatic Criticism.

*Tuesday, Thursday, Saturday at 9.* Professor Campbell.

\*FRENCH 16b. ROMANTICISM. (Not offered 1921-22).

\*FRENCH 17b. REALISM.

For the prescription of the course and the hours, see under course 10, Second Semester.

\*FRENCH 20a. THE NOVEL.

Outline of the history of the genre from 1600, with reading and discussion of a few modern novels. In addition to the prescribed texts, a certain amount of reading will be required in amplification of the lectures. Novelistic matter already studied in previous French courses will be reviewed.

Texts:

Le Sage, *Gil Blas* (Heath).

Balzac, *Le Curé de Tours* (Holt).

G. Sand, *La Mare au Diable* (Holt).

Mérimée, *Chronique de Charles IX* (Heath).

Bourget, *Un Saint* (Macmillan).

Levrault, *Le Roman* (*Les Genres littéraires*—Mellottée).

*Monday, Wednesday and Friday at 8.* Professor Hicks.

FRENCH 99 a and b. HONOUR READING COURSE for those taking their reading course in French. Students may select one of the following options or arrange with the Department some equivalent course: The Social Life of the 17th Century; The Novel in the 18th Century; The causes of the French Revolution; French Canadian Literature; Les Chansons de Geste.

## SPANISH AND ITALIAN LANGUAGES AND LITERATURE

PROFESSOR—J. H. Brovedani, D-ès-L.

TUTOR—Mildred E. Hallett, B.A.

## SPANISH

## REGULATIONS

1. Spanish A may be counted towards a degree and towards a Minor or a Major or Honours under conditions specified in section 9 of GENERAL REGULATIONS, page 55.

2. Courses numbered under 10 are open to pass students only. Courses number from 10 to 20 are open to pass and honour students. Courses numbered over 20 are open to honour students only.

3. Spanish A is a prerequisite to Spanish 1 and Spanish 1 is a prerequisite to all other courses.

4. The Minor consists of courses A, 1 (1, 2 for students entering with Spanish Matriculation), 15, 16a and 17b.

5. The Major consists of courses A, 1 (1, 2 for students entering with Spanish Matriculation), 15, 16a, 17b and 9. Italian 1, with the consent of the Department, may be substituted for one of the lecture courses.

6. Honours consist of A, 1, and four or five courses from those numbered 10 to 99, except for those students entering with Spanish Matriculation for whom 1, 2 and three to five courses from those numbered 10 to 99 are required. Italian 1, with the consent of the Department, may be substituted for one of the lecture courses.

7. Students in commercial courses will take A, 1, or A, 1 and 6.

8. Students completing their work according to a former calendar will take courses 15, 26a and 27b, for Preliminary Honours and courses 22a, 23b, 24a and 25b for Final Honours.

9. Extra-mural instruction is limited to courses A, 1, 2 and 6, which are marked with asterisks.

## 10. Reference Books:

DICTIONARIES: Honour Students are strongly recommended to use Velázquez, *English-Spanish*; *Pequeño Larousse*, written entirely in Spanish; *El Diccionario de la Academia*, and *Barcía, Sinónimos*. Pass students may try Cuyás, *English-Spanish*.

GRAMMARS: For First and Second year Students: Ramsay, *Book of Modern Spanish*. For advanced students: *Gramática de la Academia*; Bello-Cuervo, *Gramática Castellana*, one of the best Grammars written entirely in Spanish, and Pidal, *Gramática Histórica*.

PRONUNCIATION: Moreno-Lacalle, *Elements of Spanish Pronunciation*; Navarro-Tomás, *Pronunciación Española*, the best work of its kind, indispensable for students taking Specialist Course.

HISTORY OF LITERATURE: Fitzmaurice-Kelly, *History of Spanish Literature*. There is also a Spanish edition of this work with an up-to-date bibliography. Mérimée, *Histoire de la littérature Espagnole*, and Salcedo, *Literatura Española*.

SPAIN AND ITS PEOPLE: Richard Ford, *The Handbook for Travelers in Spain*, London (John Murray, 8th edition, 1892. There is also an Everyman's edition of the same work entitled Ford's *Gatherings from Spain*.) George Borrow, *The Bible in Spain* (Dent), T. Gautier, *Voyage en Espagne*, E. de Amicis, *Spain and the Spaniards* (Putnam), are classics with which every student of Spanish must be acquainted. Havelock Ellis, *The Soul of Spain* (Houghton Mifflin Co.), S. L. Bensusan, *Home Life in Spain* (Macmillan), are two of the very best modern works on this subject.

#### COURSES OF INSTRUCTION

##### \*SPANISH A. ELEMENTARY SPANISH.

Grammar, Composition, Translation, Reading and oral exercises.

Prescribed texts:

Moreno-Lacalle, *Elementos de Español* (Sanborn), for intra-mural students only.

Espinosa and Allen, *Spanish Grammar* (American Book Co.), for extra-mural students only.

Roessler and Remy, *Spanish Reader* (American Book Co.).

*Tuesday, Thursday, and Saturday at 9.*

##### \*SPANISH 1. INTERMEDIATE SPANISH.

Prerequisite—Spanish Matriculation.

*Monday, Wednesday, and Friday at 10.*

##### \*SPANISH 2. ADVANCED SPANISH.

Grammar, Composition, Translation, Conversation and Study of the following prescribed texts:



Hills, *Spanish Tales* (Holt).  
 Luquiens, *Spanish American Reader* (Macmillan).  
 Quintero, *Mañana de Sol* (Heath).  
 Cool, *Spanish Composition* (Ginn).  
 Ford, *Spanish Composition* (Heath).

*Monday, Wednesday, and Friday at 10.*

SPANISH 6. COMMERCIAL SPANISH. Prerequisite, Spanish 2.

SPANISH 9. READING COURSE for Pass students.

SPANISH 15. MODERN SPANISH LITERATURE AND COMPOSITION.

Prescribed texts:

Valdés, *La Hermana San Sulpicio* (Holt).  
 Goldós, *Marianela* (Heath).  
 Benavente, *Sir Querer* (Heath).  
*De pequeñas causas* (Heath).  
 Quintero, *Doña Clarines* (Heath).  
 Hills and Morley, *Spanish Lyrics* (Holt).  
 Cool, *Spanish Composition*, Lessons 14-28.  
 Ford, *Spanish Composition*, Part 2.

Prescription of additional work for Honour students:

Alarcón, *El Capitán Veneno* (Heath).  
 Ford, *Spanish Composition*, Part 3.  
 Ford, *Main Currents of Spanish Literature* (Holt).  
*Cuentos Castellanos* (Heath).

*The time-table will be arranged by consultation at the beginning of the session.*

SPANISH 16a. THE LITERATURE OF THE GOLDEN AGE AND ADVANCED COMPOSITION.

Prerequisite—Spanish 15.

SPANISH 17b. SPANISH AMERICAN LITERATURE AND ADVANCED COMPOSITION.

Prerequisite—Spanish 15.

SPANISH 22a. CERVANTES.

SPANISH 23b. THE DRAMA IN THE GOLDEN AGE.

SPANISH 24a. THE ROMANTIC PERIOD.

Martínez de la Rosa, Espronceda, Quevedo, Rivas, Zorrilla, Bretón de los Herreros.

SPANISH 25b. LYRIC POETRY FROM THE MIDDLE OF THE 19TH CENTURY.

- SPANISH 26a. THE NOVEL FROM 1868.  
 SPANISH 27b. CONTEMPORARY DRAMA.  
 SPANISH 28b. SPANISH-AMERICAN LITERATURE.  
 SPANISH 29a. SPANISH RENAISSANCE.  
 SPANISH 99. READING COURSE FOR HONOUR STUDENTS.

## ITALIAN

## REGULATIONS

1. With the consent of the Department students taking Honours or a Major in Spanish may substitute Italian 1 for one of their lecture courses in Spanish.
2. Students may not count more than two courses for a degree but Italian 10 or 11 may be offered instead of Italian 2.
3. Italian 1 is a prerequisite to Italian 2, and Italian 2 or 1st division Italian 1, is a prerequisite to all other courses.
4. There is no extra-mural instruction in Italian.

## COURSES OF INSTRUCTION

## ITALIAN 1. ELEMENTARY ITALIAN.

Oral Exercises, Dictation, Grammar, Composition.

Reading of extracts from Modern Italian authors.

Reading and translation of Castelnovo, *O bere o affogare* and *Lumie di Sicilia*.

*The time-table will be arranged by consultation at the beginning of the session.*

## ITALIAN 2. ADVANCED ITALIAN.

Conversation, Composition, Study of Wilkins and Altrocchi, *Italian Short Stories*; translation and literary study of Goldoni, *La Locandiera*, and of Modern Italian poetry to be announced at the beginning of the session.

## ITALIAN 10. MEDIO EVO E RINASCIMENTO.

Dante, Boccaccio, Ariosto, Tasso.

## ITALIAN 11. ETÀ MODERNA.

Goldoni, Parini, Alfieri, Monti, Foscolo, Manzoni, Leopardi, Carducci.

## ENGLISH LANGUAGE AND LITERATURE

PROFESSOR (Acting Head)—J. F. Macdonald, M.A.

ASSISTANT PROFESSOR—James A. Roy, M.A.

INSTRUCTOR—Wilhelmina Gordon, M.A.

LECTURERS—Otto Claude Kinnick, B.A., M.A.

Royall H. Snow, S.B.

TUTORS—Dorothy Brown, B.A.

Helen de Renzy.

Annie F. Robinson, B.A.

J. W. Darling, M.A.

## REGULATIONS

1. English 1 and 2 are required of all candidates for a degree in Arts. English 1 is a prerequisite to English 2, and English 2 is a prerequisite to all other courses, though one or more of the following may be taken concurrently with it: 4a, 6b, 8a, 10a, 14b, 20b.

2. Students making English their Minor subject must take courses 1 and 2 and four half-courses, of which one must be chosen from 18a, 20b, 22a, and 24b, and one from 27a, 29b, 33a, 36b, and 38a.

3. Students making English their Major subject must take English 9 a-b in addition to the work prescribed for a Minor.

4. Students making English one of their two Honour subjects must take from six to ten half-courses in addition to courses 1 and 2. If English 1 is allowed on Honour matriculation, English 4a or 6b may be included among the optional half-courses, but otherwise no course numbered under 10 may be counted towards Honours. All Honour students in English must take 10a and 14b, one of 18a, 20b, 22a, 24b, and one of 27a, 29b, 33a, 36b, 38a. Those who regard English as their main subject must include 99 a-b.

5. Candidates for the degree of M.A. who include English as one of their two special subjects must have their choice of courses approved by the Department.

6. Intra-mural students completing their work according to a former Calendar will take 10a for Anglo-Saxon, any four half-courses numbered above 10 for Preliminary Honours, and four other half courses in this group, including 14b, for Final Honours.

7. Extra-mural instruction is limited to the following courses, marked below with an asterisk: 1, 2, 4a, 10a, 14b, 18a, 20b, 22a, 24b, 27a, 29b, and 38a. Of these, only English 1 and 2 are regularly given in the summer session. In the summer of 1921, however, extra-mural

work will be offered in 27a and 29b. For extra-mural students finishing their work under a former Calendar, Preliminary Honours will consist of 18a, 22a, 24b, and 29b; and Final Honours of 27a, 38a, 14b, and 20b.

### COURSES OF INSTRUCTION

#### \*ENGLISH 1. COMPOSITION AND LITERATURE.

A practical course in Composition, with collateral reading. *Selected English Essays, Selected Short Stories* (Numbers 2 and 193 in the World's Classics Series), and Shakespeare's *Twelfth Night*.

*Tuesday, Thursday, and Saturday at 8.*

#### \*ENGLISH 2. GENERAL SURVEY OF ENGLISH LITERATURE.

The course is intended to provide a general knowledge of the history and development of English Literature, and to lay a foundation for the advanced specialized courses. It deals with the principal types of English verse; with various literary forms, such as the ballad, sonnet, epic, and drama; and with great writers, great books, and great movements. This part of the work will be based on Moody and Lovett's *History of English Literature* and Manly's *English Prose and Poetry*. In addition the following texts will be carefully studied in the class-room: Chaucer's *Prologue* (lines 1-207, 285-360, 477-528), Shakespeare's *Hamlet*, Milton's *Paradise Lost* (Book I), Thackeray's *Vanity Fair*.

*Section A. Monday, Wednesday, and Friday at 9.*

*Section B. Tuesday, Thursday, and Saturday at 9.*

#### \*ENGLISH 4a. COMPOSITION.

Lectures on the principles of effective writing. Practice in the writing of Exposition, Argument, Description, and Narration. The study of illustrative passages from the best writers. See paragraphs 1 and 4 above. This course is not open to students who have taken English 1.

*Tuesday, Thursday, and Saturday at 10. First term, Miss Gordon.*

#### ENGLISH 5b. HEBREW LITERATURE IN ENGLISH TRANSLATION.

A study of the origin and nature of this literature from 1100 to 100 B.C. Special attention in this outline will be given to the ancient stories and the poetical literature.

Text-books: *The Life and Literature of the Ancient Hebrews* by Lyman Abbott. Gunkel's *Legends of Genesis*.

Books of Reference: *The Literary Study of the Bible* by R. G. Moulton. Kautzsch's *Outline of Hebrew Literature*.

*Tuesday, Thursday, and Saturday at 11. Second term.*

Professor Jordan.



## ENGLISH 6b. DEBATING.

Lectures will be given on the principles of Argumentation, but the work of the class will consist chiefly of practical training in debating. Speeches will be criticised from the point of view of matter, organization, phrasing, and delivery. See paragraphs 1 and 4 above.

*Monday, Wednesday, and Friday at 10. Second term.*

## ENGLISH 8a. PUBLIC SPEAKING.

Voice control; platform practice; the conduct of deliberative assemblies.

## ENGLISH 9 a-b. READING COURSE FOR PASS STUDENTS taking English as a Major.

## \*ENGLISH 10a. ANGLO-SAXON.

Outlines of Anglo-Saxon Grammar. Translation and study of the following passages from Bright's *Anglo-Saxon Reader*: Account of the Poet Caedmon, Wars of Alfred the Great, Preface to the *Cura Pastoralis*, the Voyages of Ohthere and Wulfstan, the Conversion of Edwin, Assumption of St. John the Apostle (three pages), the Offering of Isaac, the Battle of Maldon (11. 244-325).

*Open only to Honour students. Monday, Wednesday, and Friday at 8.*

## [ENGLISH 11b. BEOWULF. Omitted 1921-1922.]

## \*ENGLISH 14b. CHAUCER.

A study of Chaucer's development as a poet based on a general knowledge of the following poems: *The Romaunt of the Rose*, *The Book of the Duchesse*, *The Parlement of Foules*, *Troilus and Criseyde*, *The House of Fame*, *Prologue to the Legend of Good Women*, *The Canterbury Tales*. A detailed study of the *Prologue to the Canterbury Tales* and *The Nonne Preestes Tale*. *The Works of Chaucer* (Oxford University Press).

*Monday, Wednesday and Friday at 8.*

## \*ENGLISH 18a. SHAKESPEARE.

A study of Shakespeare's development as a dramatist, involving a general knowledge of *The Two Gentlemen of Verona*, *The Comedy of Errors*, *Titus Andronicus*, *Romeo and Juliet*, *King Henry IV*, *Julius Caesar*, and *The Tempest*; and a detailed knowledge of *Twelfth Night*, *Othello*, and *King Lear*.

Additional work for Honour students: Wynne's *The Growth of English Drama*, Marlowe's *Dr. Faustus*, Kyd's *The Spanish Tragedy*.

*Monday, Wednesday, Friday at 11. First term.*

**\*ENGLISH 20b. NON-DRAMATIC LITERATURE FROM SPENSER TO MILTON.**

The following subjects will be discussed: Social, political and literary conditions in the later 16th century; the Elizabethan lyric; the poetry of Spenser; Elizabethan literary criticism; the poetry of Milton; the 17th Century lyric. The following poems will be studied in detail: Spenser, *The Shepherd's Calendar*, *The Four Hymns*, *Prothalamion*, *Epithalamion*, *The Faerie Queene*, Book I; Milton, *Lycidas*, *Comus*, *Paradise Lost*, *Samson Agonistes*, and various 17th Century lyrics.

Students taking this class for Honours will be assigned special essays, and will be examined on the following additional reading: the Elizabethan Sonnet, including Shakespeare's sonnets; Milton, *On the Morning of Christ's Nativity*, the Sonnets, some of the Prose Works, *Paradise Regained*; additional 17th Century lyrics.

*Tuesday, Thursday, and Saturday at 10. Second term, Miss Gordon.*

**\*ENGLISH 22a. THE EIGHTEENTH CENTURY.**

The chief literary movements from 1660 to 1798 will be studied.

The following texts will be read:

Dryden's *Absalom and Achitophel*; Pope's *Moral Essays*, I and III; Johnson's *Vanity of Human Wishes*; Cowper's *Task*, Book I; Swift's *Gulliver's Travels*; Johnson's *Lives of Pope*, Collins and Gray; Boswell's *Life of Johnson* (the events of 1773); selected letters of Gray and Cowper; Thomson's *Winter*; selected poems of Collins, Gray and Burns.

Additional reading for Honour students: Dryden's *Preface to his Fables*; Pope's *Imitations of Horace*; Swift's *A Tale of a Tub*; Gibbon's *Decline and Fall of the Roman Empire* (chapters 37 and 58); Burke's *Speech on Conciliation with the Colonies*; selected letters of Lady Mary Wortley Montague, Pope, Swift, Walpole, Burns, Chesterfield.

*Tuesday, Thursday and Saturday at 9. First term.*

**\*ENGLISH 24b. THE ROMANTIC REVIVAL.**

Lectures on English Poetry from 1786 to 1824. A general knowledge of the following texts will be required:

Wordsworth: *The Prelude*; *The Excursion*, Book I; *Lyrical Ballads* (1800); *The Preface to Lyrical Ballads*. Scott: *Marion*. Crabbe: *The Borough*. Byron: *The Prisoner of Chillon*; *The Bride of Abydos*; *Childe Harold*, Book III. Keats: *Sleep and Poetry*; *Isabella*; *The Eve of St. Agnes*; *Lamia*; *Hyperion*; *The Odes*. Shelley: *Alastor*; *Prometheus Unbound*.

Additional reading for Honour students: Coleridge: *Biographia Literaria* (Chapters XIV—XXII). Keats: *Letters*. Shelley: *A Defence of Poetry*. Jeffrey: *Essays on Keats and Wordsworth*.

*Tuesday, Thursday and Saturday at 9. Second term.*

**\*ENGLISH 27a. NINETEENTH CENTURY PROSE.**

A study of the main movements in nineteenth century thought, with special attention to the work of Carlyle, Ruskin, Arnold, and Emerson. Short selections from the work of other writers will also be studied as examples of prose style.

Additional work for Honour students will be announced at the beginning of the session.

*Tuesday, Thursday, and Saturday at 11. First term.*

**\*ENGLISH 29b. VICTORIAN AND LATER POETRY.**

A rapid survey of the main movements in nineteenth century poetry, with detailed study of a considerable part of the poetry of Tennyson, Fitzgerald, Browning, Arnold, Clough, Mrs. Browning, the Rossettis, Swinburne, Meredith, and Kipling. In addition there will be lectures on twentieth century writers and prescribed reading from their works.

Additional work for Honour students will be announced at the beginning of the session.

*Tuesday, Thursday, and Saturday at 11.*

**ENGLISH 33a. CANADIAN AND AMERICAN LITERATURE.**

A rapid survey of the colonial period and a somewhat more careful study of the important writers in the United States since the Revolution. A study of the work of about twenty Canadian writers.

Additional work for Honour students will be announced at the beginning of the session.

*Tuesday, Thursday, and Saturday at 10. First term.*

*Only one of the following three half-courses in the Drama and Novel may be counted towards the degree of B.A.*

**ENGLISH 36b. THE DRAMA FROM 1660 TO THE PRESENT.**

A study of the development of the English Drama based upon representative plays by Dryden, Otway, Congreve, Steele, Goldsmith, Sheridan, Byron, Jones, Pinero, Shaw, Galsworthy, Synge, Barrie, and others.

Additional work for Honour students will be announced at the beginning of the session.

*Monday, Wednesday, and Friday at 11. Second term.*

[ENGLISH 38a. THE DEVELOPMENT OF THE ENGLISH NOVEL TILL 1832.

Lectures on: The English Novel before 1740; The Influence of French and Spanish Novelists; Characteristics of the Novel of the Eighteenth Century; The Gothic Romance; The Historical Romance; The Novels of Sir Walter Scott and Jane Austen. All students will be required to read: *The Pilgrim's Progress*; *Captain Singleton*; *Clarissa Harlowe* (extracts); *Tom Jones*; *Roderick Random*; *The Vicar of Wakefield*; *The Castle of Otranto*; *Guy Mannering*; *Quentin Durward*; *The Heart of Midlothian*; *Pride and Prejudice*.

Honour students will in addition be required to make a special study of Scott's novels. Omitted 1921-22.]

[ENGLISH 40a. THE NOVEL FROM 1832 TO THE PRESENT. Omitted in 1921-1922.]

ENGLISH 42a. A HISTORY OF ENGLISH CRITICISM.

*Monday, Wednesday, and Friday at 9. First term.*

ENGLISH 99 a-b. READING COURSE FOR HONOUR STUDENTS making English their main subject.



## HISTORY

PROFESSOR OF HISTORY AND DOUGLAS PROFESSOR OF COLONIAL HISTORY—  
J. L. Morison, M.A., D.Litt., F. R. Hist. S.

ASSOCIATE PROFESSOR OF EUROPEAN HISTORY—  
J. T. McNeill, M.A., B.D., Ph.D.

ASSISTANT PROFESSOR—A. E. Prince, M.A.

## REGULATIONS

1. There are five and a half Pass courses in this subject, viz., History 1, 2, 3, 4, 5a, and 16. Students taking only one or two courses must select from History 1, 2, 3. Reading courses for pass men will be found under History 9.

2. There are five Honours courses, viz., History 10a, 11b, 12, 13, 14a, 15b, and 16. History 16 (English Constitutional History) may be taken as an Honours course by those who add the study of select Latin Charters to the Pass prescription. Reading courses for Honours students will be found under History 99.

3. Normally a student taking a Major in History will choose four courses from History 1, 2, 3, 4 and 16, with a reading course selected from History 9. But he is at liberty to substitute for one of the lecture courses either History 12 or the two half-courses History 10a and 11b, provided that he takes unmodified the ordinary honours examination in these courses.

4. Students reading for honours must take from 5 to 7 full courses, or their equivalent, including 1 or 16, 2, 3, 10a, 11b, and 12.

5. Students completing their work under the former system of studies will take History 10a, 11b, and 12 for Preliminary Honours and History 13, 14a, and 15b for Final Honours.

6. Cases in which students may desire to modify the order of the courses arranged above will be considered by the professors in the department.

7. A knowledge of historical geography is required in all classes. The most accessible atlases are:

Ramsay Muir, *Philips' New Historical Atlas for Students* (Geo. Philips & Son).

E. W. Dow, *Atlas of European History* (Holt & Co.).

The Everyman *Library and Historical Atlas of Europe* (Dent).

F. W. Putzger, *Historischer Schul-Atlas* (Leipsig).

8. Any half-courses in the department of Economics which deal with economic history or constitutional law and practice may be counted as half-courses in History. But in all such cases, the student will consult the Professor of History.

9. All the courses in History are open to extra-mural students in the winter session, but those desiring to take 13, 14a, or 15b must satisfy the Department that they have ready access to libraries containing volumes relevant to the courses chosen.

In the summer of 1921 History 3, 10a, and 11b will be offered extra-murally.

#### COURSES OF INSTRUCTION

##### HISTORY 1. BRITISH HISTORY, 1603-1885.

The lectures will discuss such topics as the following:

The beginnings of colonial settlement; the clash between prerogative and parliament; the Puritan revolution and the republican experiment under Cromwell; the Stuart Restoration and the Whig reaction of 1688; the development of party government; Imperial expansion and contraction; eclipse of the Whigs; the French Revolution and domestic reaction; the industrial revolution; middle-class Parliamentary reform; free trade; Chartism and the influence of the revolutionary nationalist movements in Europe on the growth of democracy; Victorian optimism; the Near Eastern question; Conservatism and Liberalism; the rise of modern Imperialism.

The general text-book prescribed for the course will be J. R. Green's *Short History of the English People*. In addition students will be expected to read the following: G. M. Trevelyan's *England under the Stuarts*; G. G. Robertson's *England under the Hanoverians*, and J. A. R. Marriott's *England Since Waterloo*.

Professor Prince.

##### HISTORY 2. EUROPEAN HISTORY FROM THE RENAISSANCE TO THE CONGRESS OF VIENNA—1453-1815.

The following subjects will be discussed in the lectures: The Italian and trans-Alpine Renaissance; the Spread of the Reformation; the Hapsburg Ascendency; the Thirty Years' War; the French Ascendency; the Rise of Prussia; the Rise of Russia; the Partitions of Poland; the Enlightenment and the Enlightened Despots; the French Revolution; the Napoleonic Era.

#### Text Books:

Hayes, *Political and Social History of Modern Europe*, Vol. I. (Macmillan).

Fisher, *Napoleon* (Home University Library, Williams & Norgate).

Professor J. T. McNeill.

### HISTORY 3. COLONIAL HISTORY.

Lectures will be given on the general course of Colonial Development down to 1783. These will treat of the trade routes of the Old World; the voyages of discovery; the growth of theories of colonization; Spain, France, and England in America, and the reaction of the new world upon the old; the Old Colonial system and its breakdown after the Seven Years' War; the American Revolution. Some of the more significant phases of the history of Canada between 1763 and 1867 will be discussed.

The following text-books are prescribed:

Cheyney, *European Background of American History*.

Bourne, *Spain in America*.

Tyler, *England in America*.

Andrews, *Colonial Self-Government*.

Lucas, *New France*.

Grant, *History of Canada*.

### HISTORY 4. GREEK AND ROMAN HISTORY.

By arrangement with the Professor of Greek, students taking this course will register in Greek 10a and Latin 10b, under which headings the details of the work may be found.

Professor Morison.

### HISTORY 5a. HEBREW HISTORY.

A short sketch of the history of ancient Egypt and Babylonia as an introduction to the study of the origin of the Hebrew people and the rise of the Kingdom. Hebrew history down to the beginning of the Roman rule in Palestine, special attention being given to the conflict between the Hebrew and Greek civilizations after the time of Alexander the Great.

Works of reference: *History of the Egyptians* by J. H. Breasted;  
*History of the Babylonians and Assyrians* by G. S. Goodspeed.

Text-books on the History of the Jewish People:

*The Babylonian, Persian and Greek Periods* by C. F. Kent.

*The Maccabean and Roman Period* by J. S. Riggs.

Students selecting this Course will consult Professor Jordan.

HISTORY 9. Pass students taking their Major in History will select for a Reading course one of the following options:

- (a) Lord Macaulay, *History of England* (Everyman's Library, 3 vols.); Trevelyan, *Life and Letters of Lord Macaulay* (Nelson, 2 vols.).

- (b) Gibbon, *Decline and Fall of the Roman Empire* (Everyman's Library, 6 vols.).
- (c) The Renaissance in Italy: Symonds, *The Italian Renaissance*; Villari, *Life and Times of Savonarola*, and *Life and Times of Machiavelli*; Burckhardt, *The Renaissance in Italy*; Machiavelli, *The Prince*.
- (d) Great Explorers: Henry the Navigator (Heroes of the Nations); Christopher Columbus, *Journal*; Froude, *English Seamen of the Sixteenth Century*; Parkman, *La Salle*; Blaikie, *Personal Life of David Livingstone*.

#### HISTORY 10a. THE HISTORY OF BRITISH PARTIES IN THE REIGN OF VICTORIA.

The subjects dealt with will be: The early Victorian Whigs; Sir Robert Peel and the break up of the old Tory party; Palmerston and Victorian foreign policy; Disraeli and the Conservative Party; the Victorian Radicals; Gladstonian Liberalism; the growth of Imperialism; the Labour Party.

The texts are:

Thursfield, *Sir Robert Peel* (Twelve English Statesmen).

Lord Morley, *Life of W. E. Gladstone*.

Brougham Villiers, *The Socialist Movement in England*.

Professor Morison.

#### HISTORY 11b. THE DEVELOPMENT OF CANADIAN SELF-GOVERNMENT.

The subject will include detailed study of Canadian history from Durham's Report to Confederation. A special study will be made of the development in the relations of Canada to the British Foreign Office, and Foreign Powers, and of her status within the League of Nations.

Texts:

Lord Durham, *Report on the Affairs of British North America*.

J. L. Morison, *British Supremacy and Canadian Self-Government* (Gundy).

Keith, *Selected Speeches and Documents on British Colonial Policy, 1763-1917* (The Oxford University Press).

Books of Reference:

Dent, *The Last Forty Years*.

*Canada and Its Provinces*, especially Volumes 5, 6, and 9.

Shortt, *Lord Sydenham*.

Pope, *Life of Sir John A. Macdonald*.

Willison, *Life of Sir Wilfrid Laurier*.

Joseph Howe, *Public Letters and Speeches*.

*Confederation Debates*.

Professor Morison.



## HISTORY 12. EUROPEAN HISTORY FROM THE FALL OF THE WESTERN EMPIRE TO THE FALL OF THE EASTERN EMPIRE, 476-1453.

The following subjects will be discussed in the lectures:—The Decline of Roman Civilization and Government in the West; the Barbarian Invasions; the Germanic Kingdoms; Monasticism, the Papacy, and the Expansion of the Church; the Rise of the Frankish Empire; Celtic and Anglo-Saxon Missionaries and Scholars; the New Invaders—Norsemen, Magyars, Saracens; the Holy Roman Empire; the Capetian Monarchy; Cluny, Hildebrand, and the Investiture Controversy; Feudalism, Chivalry, the Crusades; Towns and Economic Development; the Universities, the Friars, the Scholastics; the Conciliar Movement; the Dawn of the Renaissance.

### Text Books:

Thorndike, *History of Mediaeval Europe* (Houghton, Mifflin & Co.).

Note:—In essays and seminar classes students will be introduced to a number of mediaeval documents, mainly in translation. Thatcher and McNeal, *Source-Book of Mediaeval History*, and the Pennsylvania Translations and Reprints, will be utilized.

Professor J. T. McNeill.

## HISTORY 13. THE HISTORY OF SOME IMPERIAL AND INTERNATIONAL PROBLEMS.

The object of this class is to discuss the early history of some of the more important imperial and international problems of the day. The topics will change from year to year. The topics and text-books for 1921-22 are as follows:

- (i) Relations between Great Britain and the United States.

Dunning, *The British Empire and the United States*.

Latané, *America as a World-power*.

- (ii) The partition of Africa by Europe.

Sir H. H. Johnston, *The Colonization of Africa*. A more controversial account of the subject will be found in Woolf, *Empire and Commerce in Africa*.

- (iii) The dissolution of Turkey, and problems of the near East to the Treaty of Sèvres, 1920.

Material for this topic will be selected from official publications, and recent studies. An historical narrative will be found in

Miller, *The Ottoman Empire* (Cambridge Historical Series), or Jonquière, *Histoire de L'Empire Ottoman*.

Professor Morison.

## HISTORY 14a. THE AGE OF ELIZABETH.

Amongst the subjects discussed in the lectures are: The Reformation under Edward VI; the return to Catholicism under Queen Mary; Elizabeth's ecclesiastical "middle way"; psychological comparisons between the three Queens, Mary Tudor, Mary Queen of Scots, and Elizabeth; John Knox and the Reformation in Scotland; Elizabeth's diplomacy and her rivalry with Mary Queen of Scots; Mary in England and the Catholic Revival; English maritime activities and the Tudor Navy; Philip II and the Spanish Armada; colonial and commercial progress; social and economic development; the Irish problem under the later Tudors; the "Age of Shakespeare"; the beginnings of Puritanism and Parliamentary resistance to autocracy.

M. Creighton, *Age of Elizabeth*.

E. S. Beesley, *Queen Elizabeth*.

Machiavelli, *The Prince*.

W. Raleigh, *Discovery of Guiana* (Blackie's Texts).

W. Harrison, *Elizabethan England* (Scott Library).

Professor Prince.

## HISTORY 15b. EUROPE SINCE THE CONGRESS OF VIENNA, 1815-1920.

The following subjects will be discussed in the lectures:—The Confederation of Europe; the Metternich System; Liberal and republican movements; the second French Empire; the Unification of Italy; the Expansion of Russia; the Franco-Prussian War; the Near Eastern Question and the Congress of Berlin; Imperial Germany; the third French Republic; Austria and Russia at the end of the century; the Great War and the New Nations.

Text Books:

Turner, *Europe, 1789-1920* (Doubleday, Page & Co.).

As an introduction to the course students should read J. H. Rose, *Nationality in Modern History* (Macmillan). J. H. Robinson and C. A. Beard, *Readings in Modern European History*, Vol. II (Ginn and Co.), and R. B. Mowatt, *Select Treaties and Documents* (Clarendon Press), will be used for reference and should be procured by extra-mural students.

Professor J. T. McNeill.

## HISTORY 16. THE DEVELOPMENT OF ENGLISH INSTITUTIONS AND LAW TO 1837.

An introductory study of the growth of the parliamentary, administrative, ecclesiastical and legal system of England. The subjects discussed will include the following: The Anglo-Saxon Constitution; Feudal Institutions and Land Law; the organization of the Judicature; the evolution of Parliament; the development

of administration and the work of the Chancery, Exchequer, Wardrobe and Household, etc.; Lancastrian Constitutionalism; autocracy under the Yorkists and Tudors; the Church System and the Reformation; the struggle between the Stuart theory of Kingship and Parliamentaryism; constitutional experiments under the Commonwealth; the influence of the Restoration and the Revolution upon the law and custom of the Constitution; the growth of the Party and Cabinet system; George III and the powers of the Crown; the growth of the Army and Navy; social and economic legislation; the evolution of local government organizations; the development of the Judicial system.

Text-books:

F. W. Maitland, *Constitutional History of England*, or

D. J. Medley, *Student's Manual of English Constitutional History*.

This course is open to both Pass and Honours students; but the latter will be required to study certain documents in W. Stubbs' *Select Charters*, or D. J. Medley's *Original Illustrations of English Constitutional History*.

Professor Prince.

**HISTORY 99.** Honour students taking their Reading course in History will select one of the following options or will arrange with the department some equivalent course on an historical subject in which they wish to specialize.

- (a) Francis Parkman, *History of the French in Canada*; Chapais, *Le Marquis de Montcalm*.
- (b) Confederation in Canada. This will involve a knowledge of the biographies of the Canadian leaders, Macdonald, Cartier, Brown, Galt and Howe, together with a study of official printed matter, of which *Confederation Debates* is the most obvious example.
- (c) Napoleon: For introduction read J. Holland Rose, *Life of Napoleon I*, and Vandal, *L'Avènement de Bonaparte*, 2 vols.; then study Roper, *The Waterloo Campaign*, and Rosebery, *The Last Phase*.
- (d) The Unification of Italy: Thayer, *Cavour*; G. M. Trevelyan, *Garibaldi's Defence of the Roman Republic*, *Garibaldi and the Thousand*, *Garibaldi and the Making of Italy*, *English Songs of Italian Freedom*; Mazzini, *Essays* (Everyman).

## POLITICAL AND ECONOMIC SCIENCE

PROFESSOR—O. D. Skelton, M.A., Ph.D., F.R.S.C.

PROFESSOR—W. C. CLARK, M.A.

ASSISTANT PROFESSOR—W. A. Mackintosh, M.A.

ASSISTANT PROFESSOR OF COMMERCE—J. W. Ballard, B.C.S.

TUTORS—R. O. Campney, B.A.

W. A. Irwin, M.A.

H. A. Scott.

### REGULATIONS

1. Students taking only one course in this subject must choose either Economics 1 or Economics 2; it is not necessary to take Economics 1 before Economics 2. Students taking two courses should select Economics 1 and Economics 2, but other combinations may be made with the sanction of the Department.

2. Students on a Pass course who choose this subject as their Minor must take Economics 1 and Economics 2 and four half-courses, not including more than two half-courses from 50 to 70.

3. Students on a Pass course who choose this subject as their Major must take the work in paragraph 2 and in addition the reading class 9.

4. Students seeking Honours in this subject are required to take from five to seven full courses or their equivalent, including Economics 1 and 2, two of courses 10, 11, 12, and 30, and the reading class, 99, and, except with the consent of the Department, not including more than three half-courses from 50 to 70. The additional prescription of work for Honour students in classes open both to pass and to honour men will be announced in each intra-mural course and in the extra-mural instructions.

5. For requirements for the B.Com. degree, consult the special announcement of the courses in Commerce and Administration.

6. Students completing their courses according to a former calendar may count four of 12 or 13, 15 or 16, 17, 25, 26, 28, 34, 35, 36, 41, 52, 54, 57, 60, 62, as equivalent to Preliminary Honours, not more than two being selected from courses 50 to 70, and, with the same restriction, they may count four of 10 or 11, 12 or 13, 15 or 16, 21, 22, 23, 24, 26, 30, 34, 35, 52, 54, 57, 60, along with thesis and including at least one of 10, 11, 12, 13, 30, as equivalent to Final Honours.

7. The following courses (which are marked with an asterisk below) may be taken by extra-mural students during the session of 1921-22: 1, 2, 9, 10, 13, 15, 17, 22, 23, 25, 30, 34, 36, 41, 42, 62, 63, 64, 65, 99. The following courses may be taken extra-murally during the summer session, 1921: 1, 2, 12, 16, 21, 22, 25, 41, 52, 54, 60, 62, 63.



8. Courses 1 and 2 are whole courses, running throughout the year; all others are ordinarily given as semester or half-courses, though certain related courses may be required to be taken in sequence.

Courses 1-9 are introductory; 1 and 2 are fundamental for both pass and honour men; courses between 3 and 9 are not open to honour men. Courses 10 to 29 deal with economic and 30 to 49 with political and social questions; and 50 to 69 are Commerce and Administration courses. A list of the courses to be offered in this and succeeding years follows:

- |  |   |
|--|---|
| 1. Introduction to Economics.                        | 30. Political Theory since 1800.        |
| 2. Introduction to Politics.                         | 32. International Law and Organization. |
| 3. Science Economics I.                              | 33. Imperial Relations.                 |
| 4. Science Economics II.                             | 34. Canadian Constitutional Law.        |
| 9. Reading Course, for pass students.                | 35. Government of Canada.               |
| 10. Economic Theory: Production and Price Problems.  | 36. Government of United Kingdom.       |
| 11. Economic Theory: Distribution.                   | 37. Governments of Continental Europe.  |
| 12. Socialism and Relation of the State to Industry. | 38. Government of United States.        |
| 13. Problems of Labor.                               | 40. Municipal Government.               |
| 15. Economic History, United Kingdom and Europe.     | 41. National Problems.                  |
| 16. Economic History, Canada and the United States.  | 42. Social Problems.                    |
| 17. Economic Geography, introductory.                | 50. Factory Management.                 |
| 18. Economic Geography, advanced.                    | 51. Employment Management.              |
| 20. Organization of Industry.                        | 52. Marketing, Domestic.                |
| 21. Economics of Transportation.                     | 53. Marketing, Foreign.                 |
| 22. Economics of Agriculture.                        | 54. Corporation Finance.                |
| 23. International Trade and Tariff Policy.           | 55. Investments.                        |
| 24. Public Finance and Taxation.                     | 57. Business Statistics.                |
| 25. Money and Banking.                               | 58. Office Management.                  |
| 26. Canadian Banking System.                         | 59. Business Policy.                    |
| 27. Foreign Banking Systems.                         | 60. Commercial Law.                     |
| 28. The Financial Organization of Society.           | 61. Commercial Law, advanced.           |
|  | 62-67. Accounting.                      |
|  | 99. Reading Course for Honour students. |

9. The courses listed below are offered in 1921-22.

#### COURSES OF INSTRUCTION

##### \*ECONOMICS 1. INTRODUCTION TO ECONOMICS.

A general discussion of the principles governing the production, consumption, exchange and distribution of wealth, and the application of economic principles to such concrete problems as money, banking, taxation, trusts, the tariff, and the labor movement.

Marshall, *Readings in Industrial Society* (University of Chicago Press).

*Bulletins in Economics*, furnished through the Department.

Tuesday, Thursday and Saturday at 10. Professor Clark.

**\*ECONOMICS 2. INTRODUCTION TO POLITICS.**

An approach to the study of the state, its origin, form and activities, and a study of the working of governments, particularly those of the United Kingdom, United States and Canada.

Leacock, *Elements of Political Science*.

Mill, *Representative Government; On Liberty* (Everyman's).

*Readings in Politics* and *Readings in Government*, furnished through the Department.

Assigned readings.

Monday, Wednesday and Friday at 10. Professor Skelton.

**ECONOMICS 9. READING COURSE FOR PASS STUDENTS taking their Major in Economics. Individual assignments.**

**\*ECONOMICS 10a. ECONOMIC THEORY: PRODUCTION AND PRICE PROBLEMS.**

A critical study of the chief historical and current theories in connection with the production and exchange of wealth. Among the subjects that will receive special consideration are the theory of value; the determination of competitive and monopoly price; price fixing—recent experiences and future possibilities; the role of competition, monopoly, custom and the state in the control of production and prices; factors of production—nature, proportioning, substitution; large-scale production and large-scale management; and business cycles—booms, crises and depressions.

Readings in the works of Adam Smith, Ricardo, Mill, Marshall and others will be assigned. No textbook is prescribed but in this course as in Economics 11 Gide and Rist's *History of Economic Doctrines* will be found constantly useful.

Tuesday, Thursday, and Saturday at 8. Professor Clark.

**\*ECONOMICS 13b. PROBLEMS OF LABOR.**

A study of the problems arising out of the wage system, and their attempted solution by legislation, organization, and internal management.

Commons and Andrews, *Principles of Labor Legislation* (Revised edition, Harper)

Hoxie, *Trade Unionism in the United States* (Appleton).

Monday, Wednesday, and Friday at 10. Professor Mackintosh.

**\*ECONOMICS 15b. ECONOMIC HISTORY OF EUROPE SINCE 1750.**

A study of the development of the modern factory system in European countries, particularly Great Britain, with the attend-

ant changes in agriculture and commerce, from 1750 to the present day. No definite text is assigned, but for extra-mural students, Ogg, *Economic Development of Modern Europe* (Macmillan), covers the field.

*Monday, Wednesday, and Friday at 11.* Professor Mackintosh.

**\*ECONOMICS 17a. ECONOMIC GEOGRAPHY.**

This course is designed to provide the student with a considerable body of material, descriptive of modern industry and commerce, and as a study of the influence of geographic factors on the rise, dispersion and concentration of industries, and on the location of markets and commercial routes.

J. Russell Smith, *Industrial and Commercial Geography* (Holt).  
Bartholomew, *Atlas of Economic Geography* (Oxford University Press), for reference.

*Monday, Wednesday, and Friday at 11.* Professor Mackintosh.

**\*ECONOMICS 22a. AGRICULTURAL ECONOMICS.**

A study mainly of Canadian conditions, with special attention to such problems as the place of agriculture in the national life, the rural exodus, land policy and land tenure, extensive and intensive farming, the marketing and distribution of farm products, rural credit, farmers' movements and the grain trade.

Nourse, *Readings in Agricultural Economics* (University of Chicago Press).

Adams, *Rural Planning and Development* (Commission of Conservation, Ottawa).

(To be given to extra-mural students only). Professor Clark.

**ECONOMICS 24a. PUBLIC FINANCE AND TAXATION.**

A study of the theory and practice of taxation and expenditure, with special reference to Canadian conditions.

Plehn, *Introduction to Public Finance* (Macmillan, revised edition).

*Assigned Readings.*

*Monday, Wednesday, and Friday at 8.* Professor Skelton.

**ECONOMICS 25a. THE FINANCIAL ORGANIZATION OF SOCIETY.**

A general survey of the modern financial system. Money and credit, commercial banks, investment banks, trust companies, savings banks, loan and mortgage companies, co-operative credit institutions, stock exchanges and the other institutions which make up the present financial structure, will be studied with a view to ascertaining the functions which they perform, their relations to one another and to the economic system as a whole. A brief comparative study of the commercial banking systems of

England, Scotland, France, Germany, United States and Canada will also be made.

Moulton, *The Financial Organization of Society* (University of Chicago Press).

*Readings in Money and Banking*, furnished through the Department.

*Assigned Readings.*

*Tuesday, Thursday, and Saturday at 9.* Professor Clark.

**\*ECONOMICS 30b. ENGLISH POLITICAL THEORY SINCE 1830.**

Mill, *On Liberty; Representative Government* (Everyman).

Spencer, *Man Versus the State* (Watts).

Hobhouse, *Liberalism* (Home University).

Cecil, *Conservatism* (Home University).

Davidson, *Political Thought from Bentham to Mill* (Home University).

Barker, *Political Thought from Spencer to To-day.*

*Assigned Readings.*

*Monday, Wednesday, and Friday at 8.* Professor Skelton.

**\*ECONOMICS 34b. CANADIAN CONSTITUTIONAL LAW.**

Chiefly a study of the British North America Acts, and of the leading cases bearing upon the powers of the Dominion and the Provinces. A knowledge of the work covered in History 3, 11b, and 16, while not a formal prerequisite, will be found of much service before taking this course.

*Assigned Readings.*

*Monday, Wednesday, and Friday at 9.* Professor Skelton.

**\*ECONOMICS 36a. GOVERNMENT OF THE UNITED KINGDOM.**

A study of the form and working of the government of the United Kingdom.

Lowell, *Government of England* (Macmillan).

*Monday, Wednesday, and Friday at 10.* Professor Mackintosh.

**\*ECONOMICS 41a. NATIONAL PROBLEMS.**

A lecture and problem course, designed to afford a brief introduction to current questions not covered in other courses, with suggestions for further study. The topics discussed will include immigration, race and language difficulties, rural development, imperial and international relations.

*Assigned Readings.*

*Monday, Wednesday, and Friday at 9.* Professor Skelton.

**\*ECONOMICS 42a. SOCIAL PROBLEMS.**

An introductory survey of social theory, followed by a detailed study of specific social problems. Though not prerequisite, Bio-



logy 1, and Philosophy 1 (Psychology) should, if possible, be taken before this course.

*Assigned Readings.*

*Monday, Wednesday, and Friday at 8.* Professor Mackintosh.

**ECONOMICS 52b. MARKETING, DOMESTIC.**

A study of the methods and policies followed in marketing the more important staple commodities. Chief types of marketing agencies—retailers, wholesalers, commission merchants and brokers, co-operative associations, manufacturers' sales departments, chain stores, mail order houses. Advertising, private brands, price policies. Special attention will be given to Canadian conditions and as far as possible the course will be taught by the problem method.

Cherington, *The Elements of Marketing.*

Copeland, *Some Problems of Marketing.*

Weld, *Marketing of Farm Products.*

*Tuesday, Thursday, and Saturday at 9.* Professor Ballard.

**ECONOMICS 53b. MARKETING, FOREIGN.**

A course in the methods and problems of international trading, with special reference to export trade and to Canadian conditions. The economics of world trade. Canada's foreign trade—chief products and markets. The technique of foreign trade—preparing foreign shipments, shipping terms and documents, shipping, price quotations, financing. Export policies—direct and indirect exporting. Analysing and developing foreign markets. Export policies in our more important industries. Relation of import to export trade. Factors in trade-building—banks, commercial organizations, co-operation and combination, tariffs, a merchant marine, government commercial intelligence service.

Wolfe, *Theory and Practice of International Commerce.*

*Reports of Department of Trade and Commerce.*

*Consular Reports.*

*Tuesday, Thursday, and Saturday at 9.* Professor Clark.

**ECONOMICS 57b. BUSINESS STATISTICS.**

A course in the collection, presentation and interpretation of statistical data. Special attention will be given to statistics most useful to the business man, and to the development and criticism of business barometers.

Secrist, *Introduction to Statistics* (Macmillan).

Copeland, *Business Statistics* (Harvard University Press).

*Tuesday, Thursday, and Saturday at 8.* Professor Clark.

**ECONOMICS 59. BUSINESS POLICY.**

A course in Business Policy will be arranged, designed to correlate the work of the various specialized courses from the point of view of the chief executive. It will be conducted in the main by special lecturers presenting and discussing problems in location, expansion, factory management, labour administration, finance, insurance, transportation and selling policy, which have arisen and been solved in connection with particular businesses. Problems will be assigned to each student for study and report.

Shaw, *An Approach to Business Problems*.

*Assigned Readings.*

*Hours to be arranged.*

**\*ECONOMICS 62a. ELEMENTS OF ACCOUNTING.**

A study of accounting methods, designed as a general course for the student of economics and as an introduction to the advanced work in accounting.

Kester, *Accounting Theory and Practice*, Vol. I (Ronald Press).

*Tuesday, Thursday, and Saturday at 11.* Professor Ballard.

**\*ECONOMICS 63b. ELEMENTS OF ACCOUNTING.**

A continuation of Economics 62a. A study of partnership and corporation accounting, consignments, controlling accounts and the preparation of statements.

Kester, *Accounting Theory and Practice*, Vol. I (Ronald Press).

*Tuesday, Thursday, and Saturday at 11.* Professor Ballard.

**ECONOMICS 64a. INTERMEDIATE ACCOUNTING.**

Prerequisite: Economics 62a and 63b. An advanced course considering the voucher system, the problems of valuation, depreciation, practice data and theory questions.

Kester, *Accounting Theory and Practice*, Vol. II (Ronald Press).

*Tuesday, Thursday, and Saturday at 10.* Professor Ballard.

**ECONOMICS 65b. INTERMEDIATE ACCOUNTING.**

A continuation of Economics 64a, involving branch house accounting, surplus and reserve, dividends, sinking funds, accounts and reports of trustees, suspense accounts, problems and theory questions.

Kester, *Accounting Theory and Practice*, Vol. II (Ronald Press).

*Tuesday, Thursday, and Saturday at 10.* Professor Ballard.

**ECONOMICS 66a. COST ACCOUNTING.**

Prerequisites: Accounting 64a and 65b. This course presents the principles and methods of cost accounting, methods of distributing

indirect expenses, wage systems, material and labor costs and cost systems.

Jordan and Harris, *Cost Accounting Principles and Practice* (Ronald Press).

**ECONOMICS 67b. AUDITING.**

Prerequisite: Accounting 66a. A study of the preparation of statements, balance sheets, and detailed audits, reports, how to make an audit, investigations, holding companies.

Montgomery, *Auditing Theory and Practice* (Ronald Press).

**MATHEMATICS 7b. MATHEMATICS OF INVESTMENT.**

This course, given in the Department of Mathematics, may be counted as one of the special courses for the B.Com. degree.

*Tuesday, Thursday and Saturday at 11.*

**\*ECONOMICS 99. READING COURSE FOR HONOUR STUDENTS.**

Individual assignments.

## MENTAL AND MORAL PHILOSOPHY

PROFESSOR OF MORAL PHILOSOPHY—John Watson, M.A., LL.D.,  
D.D., D.Litt.

PROFESSOR OF MENTAL PHILOSOPHY—Alexander S. Ferguson,  
M.A.

ASSISTANT PROFESSOR OF PHILOSOPHY AND LECTURER IN PSYCHO-  
LOGY AND LOGIC—Norman J. Symons, M.A.

FELLOW IN MENTAL PHILOSOPHY—Rev. A. D. Matheson, M.A.

FELLOW IN MORAL PHILOSOPHY—H. R. James, M.A.

### REGULATIONS

1. Philosophy 1 and 2 are presupposed by the other courses.
2. A Minor in Philosophy consists ordinarily of courses 1, 2, 26, and 27.
3. A Major consists of the work required for a Minor together with Philosophy 9.

4. Honour students may regard Philosophy as a double subject (Mental and Moral Philosophy) and take the required twelve courses in the one Department, or they may take from five to seven courses in Philosophy and the rest in a related subject. All Honour students must take Philosophy 1, 2, 26, and 27, and those who make Philosophy their main subject must also include courses 46 and 99. The advanced work is offered in a cycle in successive years.

Students who make Philosophy a double subject are expected to take at least one course which will show their ability to read a philosophical classic in a language other than English, and they are advised to choose their language subjects accordingly.

5. Students finishing under an old Calendar may take Philosophy 26 and 27 as the equivalent of Preliminary Honours, two more advanced courses as the equivalent of Intermediate Honours, and two advanced courses beyond Intermediate Honours as the equivalent of Final Honours.

6. In the summer of 1921 courses 1, 2, 26, and 27 will be offered to extra-mural students. The courses open to extra-mural students in the winter of 1921-22 are marked with an asterisk.

### COURSES OF INSTRUCTION

#### \*PHILOSOPHY 1. MENTAL PHILOSOPHY.

##### (i) Lectures on the History of Philosophy.

Watson, *Interpretation of Religious Experience*, Vol. I.

Rand, *Modern Classical Philosophers*.

Professor Ferguson (Section B).

Professor Watson (Section A).



## (ii) Psychology.

Pillsbury, *Essentials of Psychology*.

Professor Symons (Sections A and B).

Tuesday, Thursday, and Saturday at 9.

## \*PHILOSOPHY 2. MORAL PHILOSOPHY.

(i) Plato, *Republic* I-IV (Lindsay's translation).

Professor Ferguson.

## (ii) Lectures on Ethics.

Watson, *Outline of Philosophy*.Watson, *The State in Peace and War*.

Monday, Wednesday, and Friday at 9. Professor Watson.

## \*PHILOSOPHY 9. READING COURSE FOR PASS STUDENTS.

To be arranged.

## \*PHILOSOPHY 26. RATIONALISM AND EMPIRICISM BEFORE KANT.

The philosophy of Kant's predecessors forms the basis of study. Treatment will be selective and designed to form an introduction to the theory of knowledge. Honour students will be assigned additional reading in class.

Rand, *Modern Classical Philosophers*.

Monday, Wednesday, and Friday at 8. Professor Symons.

## \*PHILOSOPHY 27. THE PHILOSOPHY OF KANT.

Watson, *Selections from Kant*.*Philosophy of Kant Explained*.

Tuesday, Thursday, and Saturday at 8. Professor Ferguson.

## PHILOSOPHY 29. DEVELOPMENT OF THE HEGELIAN PHILOSOPHY.

In this course the *Wissenschaft der Logik* will be read. The whole work will be covered in three years, and each year will count as a course.

Hours to be arranged.

Professor Watson.

## PHILOSOPHY 44a. MODERN ETHICAL THEORIES.

This half-course comprises a critical examination and comparison of the more recent tendencies in ethical theory.

Dewey and Tufts, *Ethics*.Fite, *Individualism*.Moore, *Principia Ethica*.

Monday, Wednesday, and Friday at 11. Professor Symons.

## PHILOSOPHY 44b. THE PSYCHOLOGY OF THE INSTINCTS AND EMOTIONS.

McDougall, *Social Psychology*.Drever, *Instinct in Man*.

Monday, Wednesday, and Friday at 11. Professor Symons.

\*PHILOSOPHY 45. THE PSYCHOLOGY OF THE INSTINCTS AND EMOTIONS.

This course is arranged for extra-mural students. Additional reading will be prescribed.

PHILOSOPHY 46. LOGIC.

This course is intended to serve as an introduction to modern logical theory.

Bosanquet, *Implication and Linear Inference*.

Bosanquet, *Logic*.

Reference will be made to the *Logics* of Lotze, Sigwart, Bradley, and Croce.

*Tuesday, Thursday, and Saturday at 11.* Professor Ferguson.

\*PHILOSOPHY 47b. THE THEORY OF THE STATE.

This half-course will survey recent discussions about the theory of the state.

Watson, *The State in Peace and War*.

Bosanquet, *The Philosophical Theory of the State*.

Reference will be made to the work of Hobhouse, McIver, Follett, McDougall, Tiggis, Laski, and Cole.

Professor Ferguson.

\*PHILOSOPHY 47. THE THEORY OF THE STATE.

This course is arranged for extra-mural students. References as above.

\*PHILOSOPHY 99. READING COURSE FOR HONOUR STUDENTS.

To be arranged.

*Note.*—Hours of Honour courses may be altered to suit the convenience of those attending.

## MATHEMATICS

PROFESSOR—J. Matheson, M.A.

ASSOCIATE PROFESSOR—C. F. Gummer, M.A.

ASSOCIATE PROFESSOR—N. Miller, M.A., Ph.D.

ASSISTANT PROFESSOR—K. P. Johnston, B.A., B.Sc.

LECTURER—F. M. Wood, M.A., B.Sc.

ASSISTANT—A. E. Allison, B.A.

ASSISTANT—Mrs. E. A. Newlands, M.A.

ASSISTANT—J. H. Philp, B.A.

TUTORS—Grace H. Jeffrey, M.A., Edith Tuttle, B.A., Mabel 'OBrian,  
B.A., W. E. French, B.A.

## REGULATIONS

1. Courses having numbers under 10 are whole courses, while those having numbers 10 and over, with the exception of Mathematics 99, are half-courses. Courses numbered 10 and over are Honour courses.

Students electing Mathematics as a Minor, Major, or Honour subject will consult the Department about the courses to be taken.

2. Pass students selecting Mathematics as their Major will take 1, 2, 9, and *any two* of 3, 4, 5, 6.

Pass students selecting Mathematics as their Minor will take 1, 2, and *any two* of 3, 4, 5, 6.

3. All Honour students making Mathematics their main subject must include in their selection the following: 1(h), 2, 10a, 11b, 12a, 13b, 14b, 15a, 16b, and 99. Those whose plan of work involves eight whole courses in Mathematics must include 17b and 18a in addition to the preceding courses. Any student may take eight whole courses in Mathematics; but those who have in mind the possibility of proceeding later to the degree of M.A. should take eight in their work for B.A.

4. Students completing their work under the old system of studies will choose their courses as follows:

Junior: 1; Senior: 2; Preliminary Honours: 2, 10a, and 11b; Intermediate Honours: 12a and *any three* of 13b, 14b, 15a, 16b, and 17b; Final Honours: 18a, the remaining *two* of those mentioned for Intermediate Honours, and *any one* of 20 to 23.

5. Extra-mural instruction is limited to the following courses, which are marked with an asterisk:

Winter session, 1921-2: 1, 2, 10a, 11b.

Summer session, 1921: 1 and 2.

COURSES OF INSTRUCTION

\*MATHEMATICS 1. TRIGONOMETRY, ANALYTIC GEOMETRY, AND ALGEBRA.

Barker, *Plane Trigonometry with Tables*.

Tanner and Allen, *Brief Course in Analytic Geometry*.

De Lury, *An Intermediate Algebra*.

Monday, Wednesday, and Friday at 8.

\*MATHEMATICS 1 (h).

This course covers about the same ground as course 1, but the object in view is to prepare students for higher work in Mathematics.

Monday, Wednesday, and Friday at 8.

\*MATHEMATICS 2. ELEMENTARY CALCULUS, SYNTHETIC SOLID GEOMETRY, AND ANALYTIC GEOMETRY.

Granville, *Differential and Integral Calculus*.

Tanner and Allen, *Brief Course in Analytic Geometry*.

Dupuis, *Elements of Synthetic Solid Geometry*.

(Prerequisite, 1.)

Tuesday, Thursday, and Saturday at 8.

MATHEMATICS 3. DESCRIPTIVE ASTRONOMY.

Moulton, *Introduction to Astronomy*.

(Prerequisite, 1.)

Tuesday, Thursday, and Saturday at 11.

MATHEMATICS 4. SYNTHETIC GEOMETRY.

Dupuis, *Elementary Synthetic Geometry*.

Dupuis, *Elements of Synthetic Solid Geometry*.

(Prerequisite, 2.)

MATHEMATICS 5. ANALYTIC SOLID GEOMETRY AND APPLIED CALCULUS.

Snyder and Sisam, *Analytic Geometry of Space*.

Granville, *Differential and Integral Calculus*.

(Prerequisite, 2.)

MATHEMATICS 6. GENERAL COURSE, covering selected topics in Algebra, Trigonometry and Determinants.

(Prerequisite, 2.)

MATHEMATICS 7b. MATHEMATICS OF INVESTMENT.

This class is intended primarily for students in Commerce, but is open to other students.

Skinner, *The Mathematical Theory of Investment*.

(Prerequisite, 1.)

Tuesday, Thursday, and Saturday at 11.



## MATHEMATICS 9. PASS READING COURSE.

## \*MATHEMATICS 10a. ALGEBRA.

Hall and Knight, *Higher Algebra*.

(Prerequisite, 1 (h).)

Monday, Wednesday, and Friday at 11.

## \*MATHEMATICS 11b. CALCULUS.

Granville, *Differential and Integral Calculus*.

(Open to students who have taken the first half of Mathematics 2.)

Monday, Wednesday, and Friday at 11.

## MATHEMATICS 12a. DETERMINANTS AND THEORY OF EQUATIONS.

Dickson, *Elementary Theory of Equations*.

(Prerequisites, 2, 10a.)

Monday, Wednesday, and Friday at 8.

## MATHEMATICS 13b. SYNTHETIC GEOMETRY.

Dupuis, *Elementary Synthetic Geometry*.Dupuis, *Elements of Synthetic Solid Geometry*.

(Prerequisite, 2.)

(Alternate years. Not given in 1921-22.)

## MATHEMATICS 14b. SPHERICAL TRIGONOMETRY AND ASTRONOMY.

(Prerequisite, 2.)

(Alternate years. Given in 1921-22.)

Monday, Wednesday, and Friday at 8.

## MATHEMATICS 15a. ANALYTIC SOLID GEOMETRY.

Snyder and Sisam, *Analytic Geometry of Space*.

(Prerequisite, 12a.)

Tuesday, Thursday, and Saturday at 8.

## MATHEMATICS 16b. DIFFERENTIAL EQUATIONS.

Murray, *Differential Equations*.

(Prerequisites, 2, 10a, and 11b.)

Tuesday, Thursday, and Saturday at 8.

## MATHEMATICS 17b. ADVANCED ANALYTIC GEOMETRY.

Salmon, *Conic Sections*.

(Prerequisite, 12a.)

Monday, Wednesday, and Friday at 9.

## MATHEMATICS 18a. ADVANCED CALCULUS.

Goursat-Hedrick, *Mathematical Analysis*, Vol. I.Byerly, *Integral Calculus*.

(Prerequisites, 11b, 12a, and three of 13b, 14b, 15a, 16b, and 17b.)

Monday, Wednesday, and Friday at 9.

MATHEMATICS 20b. FINITE DIFFERENCES AND PROBABILITY.

Burn and Brown, *Elements of Finite Differences*.

Fisher, *The Mathematical Theory of Probability*.

(Prerequisites, 12a and three of 13b, 14b, 15a, 16b, and 17b.)

Tuesday, Thursday, and Saturday at 9.

MATHEMATICS 21 a or b. THEORY OF NUMBERS.

(Prerequisites, 12a and three of 13b, 14b, 15a, 16b, and 17b.)

MATHEMATICS 22 a or b. QUATERNIONS AND VECTOR ANALYSIS.

Kelland and Tait, *Quaternions*.

Hardy, *Elements of Quaternions*.

Wilson, *Vector Analysis*.

(Prerequisites, 12a and three of 13b, 14b, 15a, 16b, and 17b.)

MATHEMATICS 23 a or b. THEORY OF INFINITE SERIES.

(Prerequisites, same as for course 22.)

MATHEMATICS 30 a or b. THEORY OF FUNCTIONS OF A COMPLEX VARIABLE.

Townsend, *Functions of a Complex Variable; and reference also to*.

Burkhardt-Rasor, *Theory of Functions of a Complex Variable*.

Goursat, *Cours d'Analyse Mathématique* (Tome Second).

Pierpont, *Functions of a Complex Variable*.

(Prerequisites, 18, and one of 20b, 21, 22, 23.)

MATHEMATICS 31 a or b. THEORY OF FUNCTIONS OF A REAL VARIABLE.

Pierpont, *Theory of Functions of Real Variables*, Vol. I.

(Prerequisites, same as for 30.)

MATHEMATICS 32 a or b. MODERN HIGHER ALGEBRA.

Bôcher, *Introduction to Higher Algebra*.

(Prerequisites, same as for 30.)

MATHEMATICS 33 a or b. DIFFERENTIAL GEOMETRY.

Eisenhart, *Differential Geometry*.

(Prerequisites, same as for 30.)

MATHEMATICS 34 a or b. PROJECTIVE GEOMETRY.

Veblen and Young, *Projective Geometry*, Vol. I.

(Prerequisites, same as for 30.)

MATHEMATICS 99. HONOUR READING COURSE.

## PHYSICS

PROFESSOR—A. L. Clark, B.Sc., Ph.D., F.R.S.C.

RESEARCH PROFESSOR—A. Ll. Hughes, B.A., D.Sc.

PROFESSOR—W. C. Baker, M.A.

ASSOCIATE PROFESSOR—J. K. Robertson, M.A.

ASSISTANT PROFESSOR—E. Flammer, B.Sc., Ph.D.

LECTURER—J. O. Watts, M.A.

ASSISTANTS—M. B. Kehoe, B.A., Mabel O'Brian, B.A.

### REGULATIONS

1. A student selecting Physics as a Minor subject on a Pass course will take Physics 1, 2, 11a, 13b, 14b and 15a.

2. A student selecting Physics as his Major subject on a Pass course will take 1, 2, 11a, 13b, 14b, 15a, and 9.

3. Students making Physics one of their two Honour subjects ordinarily take from three\* to five courses in addition to Physics 1 and 2. These courses will be chosen, after consultation with the Head of the Physics Department, from 10, 12, 16a, 17a, 20b, 21b, and 99. Courses 10 and 12, however, are prerequisite to any of the others.

4. Students taking the special course in Science for Teachers will choose advanced courses from 10, 12, and any two of 11a, 13b, 14b, and 15a, the two chosen to be decided after consultation with the Head of the Department.

5. Students completing their work under a former Calendar will take 10 and 12 for Preliminary Honours; 11a, 13b, 14b and 15a for Preliminary Experimental Honours (Courses VIII and VIII B of old Calendar); 11a and 15a for Preliminary Experimental Honours (Courses VIII, A, C and D); and 16a, 17a, 20b, 21b, and 22a or 22b for Final Honours.

6. Students who have completed the requirements for the B.A. degree and are proceeding to the degree of M.A. will take work consisting of at least three lectures a week on topics selected from courses 27-34, and course 35. The exact character of each student's work will be determined after consultation with the Head of the Physics Department.

7. Courses A 1 and A 2 only are open to extra-mural students, but the experimental part of the course must be postponed until it can be done intra-murally. The examination on the prescribed work may be

\*A student, with permission of the departments concerned, may take advantage of Regulation B, Section 3, page 62, which makes it possible to take two or six courses (in addition to 1 and 2).

taken in any examination period after the required standing on the exercises has been attained, but the experimental work must be done satisfactorily before credit for any course can be given.

8. The principal Physical Journals and books relating to the lectures and the laboratory work are kept in the Library of the Physics Department and in the University Library, where they may be freely consulted by the students. Certain of these may be borrowed for limited periods by making application to the librarians in charge.

#### COURSES OF INSTRUCTION

##### PHYSICS. A. 1. MECHANICS, PROPERTIES OF MATTER, HEAT, WAVE-MOTION, SOUND, LIGHT, ELECTRICITY, AND MAGNETISM.

The work of this course is elementary, forming the introduction to the subject. Its purpose is to lay a thorough foundation for subsequent work in theoretical, experimental, and technical Physics, as well as to give a fairly complete elementary knowledge of the subject to those who do not intend to pursue it further. Only an elementary knowledge of Mathematics is required.

*Lectures: Three hours, Tuesday, Thursday, and Saturday at 11.*

*Laboratory: Two hours, Tuesday or Wednesday, 3-5.*

Professor Clark and Mr. Watts.

##### PHYSICS. A. 2. MECHANICS AND LIGHT.

Prerequisite: Physics A. 1 or Honour Matriculation.

Students who enter this class with Honour Matriculation standing, and who have not taken Physics A. 1 may be required to do the laboratory work and to pass the examination of Physics A. 1. (See section B, paragraph 3, p. 55.)

**MECHANICS.** The work in this section is an extension of that done in Physics A. 1, treating the less simple parts of the subject and dealing with Dynamics of Rotation and Simple Harmonic Motion.

**LIGHT.** The work in this section consists of a detailed discussion of vibratory and wave motion; a treatment of Reflection and Refraction from the standpoint of wave theory; and a study of Dispersion, Interference, Diffraction, Spectroscopy, Polarization, and Double Refraction.

*Lectures: Three hours—Tuesday, Thursday and Saturday at 9.*

*Laboratory: Two hours—Thursday, 3-5.*

Professor Robertson and Mr. Watts.

##### PHYSICS, A. 9. PASS READING COURSE.



**PHYSICS, A. 10. MECHANICS AND HEAT.**

Prerequisite: Mathematics 2 and a minimum of fifty per cent. on Physics A. 2.

**MECHANICS.** A series of lectures in which the elements of statics and dynamics of a particle are discussed.

**HEAT.** A course on the fundamental laws of Thermodynamics and their application to the Thermodynamical Scale of Temperature, to the treatment of Saturated Vapours, and to Reversible Processes in general.

*Lectures: Two hours—Tuesday and Thursday at 10.*

*Laboratory: Two hours—Tuesday, 3-5.*

Professors Clark, W. C. Baker, and Flammer.

**PHYSICS, A. 11a. MECHANICS AND PROPERTIES OF MATTER.**

In this course the fundamental concepts of Physics are emphasized by the detailed discussion of such topics as Elasticity, Simple Harmonic Motion, Gyroscopic Phenomenon, Surface Tension, Capillarity, Flow of Fluids, etc.

Prerequisite: Mathematics 2 and 50 per cent. standing on Physics, A. 2.

*Lectures: Two hours—Monday and Wednesday at 8.*

*Laboratory: Two hours—Tuesday, 3-5. Professor W. C. Baker.*

**PHYSICS, A. 12. ELECTRICITY AND MAGNETISM.**

This course is divided into two portions. In the first half, lectures are given on the elements of the Mathematical Theory of Electricity and Magnetism. In the second half an attempt is made to acquaint the students with some of the modern developments in Physics. Lectures are given on such topics as, The Structure of the Atom, Conduction of Electricity through Gases, Radioactivity.

Prerequisite: Mathematics 2 and 50 per cent. standing on Physics, A. 2.

*Lectures: Two hours—Wednesday and Friday at 10.*

*Laboratory: Two hours—Thursday, 3-5.*

Professors W. C. Baker and Hughes.

**PHYSICS, A. 13b. ELECTRICITY AND MAGNETISM.**

In this course an attempt is made to acquaint the student with some of the modern developments in Physics. Lectures are given on such topics as, The Structure of the Atom, Conduction of Electricity through Gases, Radioactivity.

Prerequisite: Mathematics 2 and 50 per cent. standing on Physics, A. 2.

*Lectures: Two hours—Wednesday and Friday at 10.*

*Laboratory: Two hours—Thursday, 3-5.*

Professor Hughes.

**PHYSICS, A. 14b. HEAT.**

A course on the fundamental laws of Thermodynamics and their application to the Thermodynamical Scale of Temperature, to the treatment of Saturated Vapours and to Reversible Processes.

Prerequisite: Mathematics 2, and 50 per cent. standing on Physics, A. 2.

*Lectures: Two hours—Tuesday and Thursday at 10.*

*Laboratory: Two hours—Tuesday, 3-5.*

Professor Clark.

**PHYSICS, A. 15a. LABORATORY.**

A laboratory course designed for students on a Pass course taking Physics as a Major or Minor, as well as for students taking Experimental Honour Physics under the old system of studies.

*Laboratory: Six hours.*

*Students desiring to attend lectures in courses beyond 15a are advised to acquire a reading knowledge of French and German.*

**PHYSICS, A. 16a. DYNAMICS OF RIGID AND ELASTIC BODIES.**

A discussion of Motions of a Rigid Body, Ellipsoids of Inertia, Motion with Fixed Axis and Fixed Point, Euler's Equations, and applications to Motion of the Symmetrical Top. Stress and Strain Relations in Elastic Bodies, Elastic Constants.

Prerequisite: Physics A. 10 and A. 12.

*Lectures: Two hours—Monday and Wednesday at 11.*

*Laboratory: Two hours.*

Professor Flammer.

**PHYSICS, A. 17a. PHYSICAL OPTICS.**

A course of lectures on the theory and phenomena of Physical Optics, including a discussion of Wave Motion, Diffraction, Interference Spectroscopes, Polarization and Double Refraction.

Prerequisite: Physics A. 10 and A. 12.

*Lectures: Two hours—Tuesday and Thursday at 11.*

*Laboratory: Two hours.*

Professor Robertson.

**PHYSICS, A. 20b. ELECTRICITY AND MAGNETISM.**

Electrodynamics, Conduction through Gases.

Prerequisite: Physics A. 10 and A. 12.

*Lectures: Two hours—Monday and Wednesday at 11.*

*Laboratory: Two hours.*

Professor Flammer.

**PHYSICS, A. 21b. KINETIC THEORY OF GASES.**

Prerequisite: Physics A. 10 and A. 12.

*Lecture: Two hours—Tuesday and Thursday at 11.*

*Laboratory: Two hours.*

Professor Hughes.

PHYSICS, A. 22 a or b. LABORATORY. *Six hours.*

PHYSICS, A. 27 a or b. MECHANICS.

The development and application of such important principles as the Principle of Virtual Work, Principle of d'Alembert, Hamilton's Principle of the Least Action, Lagrange's Equations, and a brief treatment of Non-Newtonian Mechanics.

PHYSICS, A. 28 a or b. HEAT.

Thermodynamical Equilibrium and Advanced Kinetic Theory.

PHYSICS, A. 29 a or b. OPTICS.

The Electro-Magnetic Theory of Light with applications to the Theory of Dispersion and Absorption; Magneto- and Electro-optics.

PHYSICS, A. 30 a or b. ELECTRICITY AND MAGNETISM.

PHYSICS, A. 31 a or b. RADIATION AND QUANTUM HYPOTHESIS.

PHYSICS, A. 32 a or b. PARTIAL DIFFERENTIAL EQUATIONS OF PHYSICS.

PHYSICS, A. 33 a or b. ELECTRICAL OSCILLATIONS.

PHYSICS, A. 34 a or b. HYDRODYNAMICS AND AERODYNAMICS.

PHYSICS, A. 35 a or b. LABORATORY.

Usually a small piece of directed research under the immediate supervision of a member of the staff. The aim is to familiarize the student with the conditions, methods, and spirit of physical research. If the student proves himself capable, he may be given a problem for independent investigation.

PHYSICS, A. 99. HONOUR READING COURSE.

Each student will be assigned work after consultation with the Head of the Physics Department.

The work in connection with this course will consist not only of independent reading but also of experimental work relating to the special field in which the student is reading.

## CHEMISTRY

PROFESSOR OF CHEMISTRY—Arthur C. Neish, M.A., Ph.D.

PROFESSOR—L. F. Goodwin, A.C.G.I., Ph.D.

PROFESSOR—A. P. Lothrop, M.A., Ph.D.

ASSOCIATE PROFESSOR—John Waddell, B.A., D.Sc., Ph.D.

ASSISTANT PROFESSORS—J. L. McKee, B.A., M.Sc., Ph.D.

J. A. McRae, M.A.

LECTURERS—A. F. G. Cadenhead, B.A.

Roy L. Dorrance, B.A.

## REGULATIONS

*Sequence:* Chemistry 1 and 2 are prerequisite to all other courses in Chemistry.

*Pass Minor:* Chemistry 1, 2, 21, 31.

*Pass Major:* Chemistry 1, 2, 21, 31, and 9.

*Honours, Five courses:* Chemistry 1, 2, 21, 31, 41.

*Honours, Six courses:* Chemistry 1, 2, 21, 31, 41, 61 or 71.

*Honours, Seven courses, with Physics Minor:* Chemistry 1, 2, 21, 31, 41, 71, or 106b and 75hf., and 99.

*Honours, Seven courses, with Biology Minor:* Chemistry 1, 2, 21, 31, 41, 61 and 99.

*Old Preliminary Honours:* Chemistry 31, 111hf. and 75hf.

*Old Final Honours:* Chemistry 21, 41 or 45.

Courses open to Extra-mural students in Summer School of 1921 and winter of 1921-22: Chemistry 1, 21. The laboratory work in extra-mural Chemistry must be done at the Summer School.

Candidates for the degree of M.A. who include Chemistry as one of their two special subjects must have their choice of courses approved by the Department.

	First	Second	Research
	Courses	or Advanced	Training
		Courses	Courses
Inorganic Chemistry .....	1, M 1	101, 106b	201
Qualitative Analysis .....	2	111hf.	..
Organic Chemistry .....	21, M 21	121, 123hf.	221
Quantitative Analysis ..	31	133hf.	231
Physical Chemistry .....	41, 45	141b	241
Physiological Chemistry ..	61	..	..
Industrial Chemistry .....	71, 75hf.	171a	271
Reading Courses .....	9	99	..



## COURSES OF INSTRUCTION

## Inorganic Chemistry

## CHEMISTRY A. 1.—GENERAL INORGANIC CHEMISTRY.

This course presupposes a mastery of the contents of matriculation Chemistry, and starts from such knowledge, instead of including it. In addition to the history, methods of preparation, properties and industrial application of the most important non-metals and metals and their compounds, the fundamental theories, laws and principles are emphasized. Simple unknowns are also given.

*Texts*—Alex. Smith, *General Chemistry for Colleges*.

*Laboratory Outline for College Chemistry*.

*Prerequisite*—Matriculation Chemistry and Physics or equivalents.

*Lectures*—Monday and Wednesday at 9 in room 310 Gordon Hall.

*Laboratory*—Thursday, 1-4, in 305-308, Gordon Hall.

Professor Neish and Assistants.

## CHEMISTRY M. 1.—GENERAL INORGANIC CHEMISTRY AND QUALITATIVE ANALYSIS—MEDICAL COURSE.

Similar in content to Chemistry 1 preceding, except that the inorganic is given mainly in the first term, meeting four hours a week in the class room and six hours a week in the laboratory. In the second term a systematic course in qualitative analysis is given based on the principles of the ionization theory, mass action, and solubility product, with special applications to Medicine.

Open to students in Arts registered for the degree of B.A. as outlined in the Biochemistry, Biology and Bacteriology Courses.

*Texts*—Alex. Smith, *General Chemistry for Colleges*.

*Laboratory Outline for College Chemistry*.

*Prerequisite*—Matriculation Chemistry and Physics or equivalents.

*Lectures*—Tuesday, Thursday, and Saturday at 9 and Thursday at 2, in room 310, Gordon Hall.

*Laboratory*—Monday and Friday, 1-4, in 305, 308 Gordon Hall.

Mr. Dorrance and Assistants.

## CHEMISTRY 101. ADVANCED INORGANIC CHEMISTRY.

In the lectures such topics are discussed as radioactivity, atomic weight, inert gases, rare metals, peracids and salts, double salts, alloys, metallic amino compounds. In the laboratory inorganic preparations will be made, such as cobaltcyanides, sodium bis-muthate, cobaltamines, and a number of others as given in Biltz.

*Texts*—References to books in Library.

*Prerequisite*—Chemistry 1, 2, 21, 31, 41, and Physics 2.

*Lectures*—Tuesday and Thursday at 10 in room 105, Gordon Hall.

*Laboratory*—Friday, 1-4, room 207, Gordon Hall.

Professor Waddell.

**CHEMISTRY 106b. COLLOIDAL CHEMISTRY.**

A short course of two hours a week for the second term. The importance of colloidal chemistry, both in the inorganic and organic fields will be demonstrated by laboratory experiments, assisted by an occasional lecture demonstration.

*Prerequisite*—Chemistry 1, 2, 21, and Physics 2.

*Lectures and Laboratory*—Friday 9-11, 213, Gordon Hall.

Mr. Cadenhead.

**CHEMISTRY 210. INORGANIC CHEMISTRY—Research Training.**

For graduate students electing thesis work in Inorganic Chemistry.

Professors Neish and Waddell.

**Qualitative Analysis****CHEMISTRY 2. QUALITATIVE ANALYSIS.**

The lectures deal with the chemistry of the analytical reactions. The development and application of the laws of equilibrium and solutions are emphasized, and special attention is given to the application of the solubility product principle. The course includes the systematic analysis of the usual basic and acid radicals.

*Texts*—Stieglitz, *Qualitative Chemical Analysis*, Vols. I and II.

A. A. Noyes, *Qualitative Chemical Analysis*.

*Prerequisite*—Chemistry 1 and Physics 1.

*Lectures*—Tuesday and Thursday at 11 in room 310, Gordon Hall.

*Laboratory*—Wednesday, 1-4, in 107, 109, Gordon Hall.

Mr. Cadenhead.

**CHEMISTRY 111 hf. ADVANCED QUALITATIVE ANALYSIS; half-course.**

A course of three hours a week, consisting essentially of laboratory work, with an occasional lecture. The work will be a continuation of the work in Chemistry 2, together with the qualitative analysis of rare earths, metals and rare acid radicals. Or, a student may elect this course and Chemistry 2 at the same time making the combined courses equal to the full course in Qualitative Analysis given the Chemists and Chemical Engineers, Chemistry 15.

*Texts*—Same as Chemistry 2.

*Prerequisite*—Chemistry 1, 2, and Physics 1.

*Laboratory*—Thursday, 1-4, in 107, 109, Gordon Hall.

Mr. Cadenhead.

**Organic Chemistry****CHEMISTRY 21. ORGANIC CHEMISTRY.**

An elementary course in general organic chemistry. The properties of the more important compounds are studied in the laboratory and a number of them prepared.

*Texts*—Stoddard, *Introduction to Organic Chemistry*.

Fisher, *Laboratory Manual of Organic Chemistry*.

*Prerequisite*—Chemistry 1, 2, and Physics 1.

*Lectures*—Wednesday and Friday at 11 in room 105 Gordon Hall.

*Laboratory*—Wednesday, 1-4, in 213, Gordon Hall.

Professor McKee.

#### CHEMISTRY M. 21. ORGANIC CHEMISTRY—Medical Course.

The elementary principles of organic chemistry and its compounds, essential as a foundation for physiological chemistry. Typical organic substances are prepared and the properties of the more important classes of compounds of both the aliphatic and benzene series are studied in detail in the laboratory. This course is required of the students in the second year of the course in Medicine and open to students in Arts registered for the degree of B.A. as outlined in the Biochemistry, Biology and Bacteriology courses.

*Texts*—Macbeth, *Organic Chemistry for Medical Students*.

Steel, *Laboratory Manual of Organic Chemistry for Medical Students*.

*Prerequisite*—Chemistry 1 and 2.

*Lectures*—Monday and Friday at 10, in room 310, Gordon Hall.

*Section A*, Thursday, 9-12, in 301, Gordon Hall.

*Section B*, Tuesday, 9-12, in 301 Gordon Hall.

Profesor Lothrop.

#### CHEMISTRY 121. ADVANCED ORGANIC CHEMISTRY.

An advanced systematic course accompanied by numerous lectures on special topics, such as stereoisomerism and the synthesis of the sugars. The laboratory work consists of qualitative and quantitative analysis, harder preparations, etc.

*Texts*—Norris, *Outlines of Organic Chemistry*.

Gatterman, *The Practical Methods of Organic Chemistry*.

Weston, *A Scheme for the Detection of the more common classes of Organic Compounds*.

*Books of Reference*—Cohen, *Advanced Organic Chemistry and selected Monographs*.

*Prerequisite*—Chemistry 1, 2, 21, 31, 41, and Physics 2.

*Lectures*—Tuesday and Thursday at 11, in room 105, Gordon Hall.

*Laboratory*—Thursday 1-4, or Saturday 9-12, in room 213, Gordon Hall.

Professor McRae.

#### CHEMISTRY 123 hf. ADVANCED ORGANIC CHEMISTRY—half-course.

A course of three laboratory hours a week. This course will be a continuation of the laboratory work done in Chemistry 121. Or,

the student may elect this course and 121 at the same time making the combined courses equal to Advanced Organic Chemistry 121 given the Chemists in their fourth year.

Professor McRae.

**CHEMISTRY 221. ORGANIC CHEMISTRY—Research Training.**

For graduate students electing thesis work in Organic Chemistry.

Professors McRae and McKee.

**Quantitative Analysis**

**CHEMISTRY 31. QUANTITATIVE ANALYSIS.**

In addition to the use and care of the analytical balance, the analysis of Barium Chloride, Calcium Carbonate, Magnesium Sulphate, Coal, Bleaching Powder, Iron Ore, Copper Ore, Nickel Ore, Lead Ore, and Alkalimetry and Acidimetry are done in the laboratory and the underlying principles discussed in the lectures.

*Texts*—Waddell, *Quantitative Analysis in Practice*.

*Prerequisite*—Chemistry 1, 2, and Physics 1.

*Lectures*—Thursday at 1 in room 310, Gordon Hall.

*Laboratory*—Monday 1-4 in 207, 219, Gordon Hall.

Professor Waddell.

**CHEMISTRY 133 hf. ADVANCED QUANTITATIVE ANALYSIS—half-course.**

A course of three hours' laboratory work a week. This course will be a continuation of the work done in Chemistry 31. Or, a student may elect this course and Chemistry 31 at the same time, making the combined courses equal to the full course in Quantitative Analysis given the Chemists in their third year.

*Laboratory*—Friday 1-4, or Saturday 9-12, in 207, Gordon Hall.

Professor Waddell.

**CHEMISTRY 231. QUANTITATIVE ANALYSIS—Research Training.**

For graduate students electing thesis work in Quantitative Analysis.

Professor Waddell.

**Physical Chemistry**

**CHEMISTRY 41. PHYSICAL CHEMISTRY.**

The course has for its primary object the inculcation of the fundamental principles of the Science of Chemistry by lectures, demonstrations, and quizzes. This course aims to give the student an acquaintance with the methods and instruments of physico-chemical technical operations and the procuring of accurate data for the solving of difficult problems arising in research or industrial operation. Studies are made of methods of procuring all sorts of physical constants such as surface tension, viscosity, transformation number, electrical methods, etc.



*Texts*—Washburn, *Principles of Physical Chemistry*.

Findlay, *Practical Physical Chemistry*.

*Prerequisite*—Chemistry 1, 2, 21, 31, Physics 2 and Mathematics 5.

*Lectures*—Tuesday and Thursday at 9 in room 105, Gordon Hall.

*Laboratory*—Tuesday 1-4, or Saturday 9-12, in 115, Gordon Hall.

Professor Goodwin.

#### CHEMISTRY 45. PHYSICAL CHEMISTRY, ELECTRO-CHEMISTRY.

The principal topics treated are the theory of electrolytic conduction, the electromotive force of primary cells, polarization, and electrolysis. A few examples of industrial processes are briefly discussed. The laboratory work is closely related to the lectures.

*Texts*—Le Blanc, *Electro Chemistry*.

Findlay, *Practical Physical Chemistry*.

Elbs-Hutton, *Electrolytic Preparations*.

*Prerequisite*—Chemistry 1, 2, 21, 31, Physics 2 and Mathematics 5.

*Lectures*—Monday at 10 and Thursday at 8, in room 105, Gordon Hall.

*Laboratory*—Wednesday or Thursday 1-4, in 115, Gordon Hall.

Professor McKee.

#### CHEMISTRY 141b. ADVANCED PHYSICAL CHEMISTRY.

This course deals with kinetics, mono- di- tri-molecular reactions and equilibria, catalysis, equations of state and kinetic theory, optimum temperatures, and thermo dynamics. Modern theory of solutions, hydration, boiling and freezing point laws. Thermo Chemistry, Thermo Dynamics of technical gas reactions.

*Texts*—Lincoln, *Physical Chemistry*.

Mellor, *Chemical Statics and Dynamics*.

Findlay, *Osmotic Pressure*.

*Prerequisite*—Chemistry 1, 2, 21, 31, 41, Physics 2 and Mathematics 5.

*Lectures*—Monday and Friday at 11 in room 105, Gordon Hall.

*Laboratory*—Monday 1-4, in Gordon Hall.

#### CHEMISTRY 241. PHYSICAL CHEMISTRY—Research Training.

For graduate students electing thesis work in Physical Chemistry.

Professors Goodwin and McKee.

### Physiological Chemistry

#### CHEMISTRY M. 61. PHYSIOLOGICAL CHEMISTRY.

A detailed study of the properties of colloids, carbohydrates, lipoids and proteins followed by a discussion of the chemical processes involved in respiration, secretion, digestion, absorption, metabolism and excretion and the chemistry of foods and of the tissues. This course is required of students in the third year in Medicine and is open to students in Arts taking Biology.

*Texts*—Mathews, *Physiological Chemistry*.

Hawk, *Practical Physiological Chemistry*.

*Prerequisite*—Chemistry 1, 2, or M. 1, 21.

(This course will not be offered in 1921-22.)

Professor Lothrop.

### Industrial Chemistry

#### CHEMISTRY 71. INDUSTRIAL CHEMISTRY—Lectures and Laboratory.

In the lectures the following topics, illustrated by specimens, lantern slides, motion pictures, and visits to plants will be discussed: Industrial applications of air and water, natural gases, petroleum products, producer gas, water gas, coal gas, by-product coke, sulphur, sulphuric acid, sulphite liquor, hydrochloric acid, nitrates natural and synthetic, fertilizers, mortars and cements.

In the laboratory typical industrial processes as crystallization, precipitation, filtration, distillation and rectification, incomplete reactions, gas analysis and industrial flow sheets.

*Texts*—Rogers, *Manual of Industrial Chemistry*.

Rogers, *Laboratory Guide of Industrial Chemistry*.

*Prerequisite*—Chemistry 1, 2, 21, 31, and Physics 1.

*Lectures*—Tuesday and Thursday at 10, in room 310, Gordon Hall.

*Laboratory*—Wednesday 1-4, or Thursday 2-5, in 112, Gordon Hall.

Professors Neish and Goodwin.

#### CHEMISTRY 75 hf. INDUSTRIAL CHEMISTRY, lectures only; half-course.

This course consists of the same lectures as Chemistry 71, and is intended for students in Arts who may or may not wish to take Qualitative Analysis, but who are anxious to know something of the application of Chemistry.

*Text*—Rogers, *Manual of Industrial Chemistry*.

*Prerequisites*—Chemistry 1 and Physics 1.

*Lectures*—Tuesday and Thursday at 10, in room 310, Gordon Hall.

Professor Neish.

#### CHEMISTRY 171a. ADVANCED INDUSTRIAL CHEMISTRY.

This course deals with the following subjects: Distillation and dephlegmation, wood distillation, alcohol, acetic acid, acetone, dissolution, decantation, filtration, centrifugals, manufacture of organic nitro compounds and explosives, cyanamide, ammonia. Equilibrium and optimum conditions for contact sulphuric acid and synthetic ammonia processes, absorption of gases by liquids and solids, absorption and reaction towers, electric furnace products and synthetic acetone, potash manufacture and recovery, recovery of waste acids, ceramics, films, sulphite, sulphate and mechanical wood pulp, paper.

*Texts*—References to books in Library.

*Prerequisite*—Chemistry 1, 2, 21, 31, 41, and Physics 2.

*Lectures*—Monday and Friday at 9, in room 105, Gordon Hall.

*Laboratory*—Monday 1-4, in 112, Gordon Hall.

Professor Goodwin.

CHEMISTRY 271. INDUSTRIAL CHEMISTRY RESEARCH.

For graduate students electing thesis work in Industrial Chemistry.

Professors Neish and Goodwin.

Reading Courses

CHEMISTRY 9. HISTORY OF CHEMISTRY. Reading course for Pass students making Chemistry their Major. The books mentioned below are in the Chemical Library, Gordon Hall.

*Texts*—*Alembic Club Reprints*.

E. F. Smith, *Life of Robert Hare*.

Campbell-Brown, *History of Chemistry*.

Professor Neish.

CHEMISTRY 99. GENERAL CHEMISTRY. READING COURSE for Honours students whose main work is in Chemistry.

I. History of Chemistry. A more comprehensive knowledge of the subject will be required than in Chemistry 9. The literature of some special chemical topic will form a part of the course, and some books on Industrial Chemistry will be presented.

II. Colloidal Chemistry. Library reading and laboratory work on some special topic together with some reading in Industrial Chemistry.

Professor Neish.

## BIOLOGY

PROFESSOR—W. T. MacClement, M.A., D.Sc.

ASSISTANT PROFESSOR—R. O. Earl, B.A.

ASSISTANT PROFESSOR—A. B. Klugh, M.A.

TUTOR AND DEMONSTRATOR—H. C. White.

TUTOR—J. G. Coulson, B.A.

### REGULATIONS

The work of the department of Biology is the general study of plants and animals in their development, forms, life processes and life relations.

All students beginning the study of Biology will take Biology 1. Students intending to go further with the subject will take also Biology 2, and then select courses in Botany, Zoology or Bacteriology. The student may confine his attention to one of these branches, or take courses from any or all of them. Almost any combination of the courses may be made, providing that attention has been given to the prerequisites. The advice of an instructor should be sought in the selection of courses.

Students taking Biology as a minor subject in a pass course will take Biology 1 and 2, and two courses or their equivalents in half courses from Biology 10, 11, 12a, 13b, 21, 22a, 23b, 24a, 25b.

Those taking Biology as a major subject in a pass course will take Biology 1 and 2, and one of the options of 9 as a reading course, with two courses or their equivalents in half courses from Biology 10, 11, 12a, 13b, 14a, 21, 22a, 23b, 24a, 25b, Bacteriology 10a, 11b, 12b.

A student taking Honours in Biology will take Biology 1 and 2, and from three to five other courses chosen from 10, 11, 12a, 13b, 14a, 16b, 18, 21, 22a, 23b, 24a, 25b, 28, Bacteriology 10a, 11b, 12b, 13a, 14b.

Students making Biology their main subject must include one course from 99, and may also include Biology 26 and 27 among those selected.

Students completing honour courses under the former system of studies will take for Preliminary Honours two courses or their equivalents in half courses from Biology 10, 11, 12a, 13b, 21, 22a, 23b, 28. For Final Honours two other courses will be selected from Biology 10, 11, 12a, 13b, 21, 22a, 23b, 26, 27, 28, 30, and Bacteriology 10a, 11b, 12b, 13a.

Extra-mural students may take Biology 1, 2, and 10 in the summer of 1921. The laboratory work of these courses will be offered in the Summer School. For the winter of 1921-22 and the summer of 1922, Biology 1, 2, and 11 may be taken but no examination in these may be written until the laboratory work has been completed. This will be offered in the Summer School of 1922.



For the qualification of Science Specialist in the Department of Education of Ontario a degree with honours in two of Biology, Chemistry, Physics is required. In Biology the student should include in his course five or seven of 1, 2, 10, 11, 21, 22a, 23b, and one other course selected with the approval of an instructor.

When a course in Medicine is to follow the Arts course the following in Biology will prove most useful: 1, 2, 10, 11, 14a, 16b, 18, 21, 22a, 23b, 26, 27, 28.

As a preparation for any branch of Agriculture students should take as many as possible of Biology 1, 2, 10, 11, 12a, 13b, 16b, 18, 21, 22a, 23b.

Students looking forward to a lifework in the Civil Service, as in Agriculture, Fisheries, or Forestry work, should take one of the Research courses in Biology, Bacteriology, and Biochemistry as outlined on p. 67.

#### COURSES OF INSTRUCTION

##### BIOLOGY 1. ELEMENTARY BOTANY AND ZOOLOGY.

(i) An outline study of the structures, activities and life relations of seed plants.

- (a) The dissection, drawing and discussion of seeds, roots, stems, buds, leaves, flowers, fruits and seeds.
- (b) Lectures and experiments in plant physiology.
- (c) Outline of forest conservation.
- (d) Field work to study the relations of plants to their environment.

Textbook: Ganong, *Botany for Colleges*.

Lecture, Tuesday 10. Laboratory, Monday and Wednesday 2-4.

First term. Professor MacClement.

(ii) An elementary course in General Zoology, with special reference to the fauna of Canada.

Dissection of the earthworm, clam, locust, and frog. Scalpel, forceps and scissors are required for these dissections. Careful drawings will be made.

Textbooks: Linville and Kelly, *General Zoology*.

Colton, *Practical Zoology*.

Lectures, Tuesday and Thursday at 10.

Laboratory, Monday and Wednesday, 2 to 4.

Second term. Professor MacClement.

##### BIOLOGY 2. GENERAL ZOOLOGY, PHYSIOLOGY, ECOLOGY.

(i) Lectures in General Zoology with special reference to heredity, variation, evolution, physiology, economic zoology, and elementary animal ecology.

- (ii) Microscopic study of the protozoa and hydra, and the dissection and drawing of the crayfish, fish, bird and mammal.

Textbooks.

Linville and Kelly, *General Zoology*.

Colton, *Practical Zoology*.

*Lectures, Tuesday and Thursday at 10.*

*Laboratory, Monday, 2-4.*

First term. Professor Klugh.

- (iii) An outline study of the structure and reproduction of the seedless plants.
- (iv) Microscopic study of algae, fungi, mosses and ferns.
- (v) Drawing of anatomical sections of leaves, stems, roots, fruits and seeds.

Textbooks: Ganong, *Botany for Colleges*.

Stevens, *Plant Anatomy*.

*Lecture, Tuesday at 10. Laboratory, Monday and Wednesday 2-4.*

Second term. Professor MacClement and Professor Klugh.

BIOLOGY 3. MEDICAL BIOLOGY. See Medical Calendar.

BIOLOGY 9.

Pass students taking their major in Biology may select one of the following options as a reading or unassisted course:

(i) EVOLUTION AND GENETICS.

This is a reading course. Students will consult the instructor as to the work of the course.

Professor Earl.

(ii) ECONOMIC ZOOLOGY.

A reading and laboratory course. Students will consult the instructor as to the work of the course.

Professor Klugh.

BIOLOGY 10. PLANT MORPHOLOGY.

A study of the development, structure, modification and reproduction of plants, from the simplest to the most complex. The microscopic study of materials to illustrate the above. Permanent records of observations.

Prerequisites—Biology 1 and 2.

*Lecture, Tuesday at 8. Laboratory, Tuesday and Thursday 2-4.*

Professor Earl.

BIOLOGY 11. PLANT PHYSIOLOGY.

A series of experimental studies of the chemical and physical activities of plants, with class discussions.

Prerequisites—Biology 1 and 2, and Chemistry A1.

*Lecture, Monday at 11. Laboratory, Friday 1-5. Dr. Reed.*

**BIOLOGY 12a. PLANT ECOLOGY, PHYSIOLOGICAL.**

Advanced plant physiology, with a consideration of the relations of plants to their surroundings, especially soil, water, light.

Prerequisites—Biology 1, 2, 10, 11, Chemistry A1, A21.

*Lectures, Tuesday at 9. Laboratory, Wednesday 1-5.*

Dr. Reed.

**BIOLOGY 13b. PLANT ECOLOGY, GEOGRAPHICAL.**

The relations of plants to latitude, altitude, climate, and other distributive factors.

Prerequisites—Biology 1, 2, 10, 11.

*Lecture, Tuesday at 9. Laboratory, Thursday 2-4*

Professor MacClement.

**BIOLOGY 14a. MICROTECHNIQUE.**

The fundamentals of plant histology, and cytology. Chemical tests and stains for the chief constituents and products of plants. The preparation of permanent mounts of the different classes of plant structures.

Prerequisites—Biology 1 and 2, Chemistry A1.

*Laboratory, Thursday 1-5.*

Mr. White.

**BIOLOGY 16b. EVOLUTION AND GENETICS.**

Lectures on the theory of evolution and genetics, with experimental work on the variation and heredity of plants and animals.

Prerequisites—Biology 1 and 2.

Not offered 1921-22.

**BIOLOGY 17a. PALEOBOTANY.**

The methods and forms of plant fossilization, their geological distribution, and their relations to living forms.

Prerequisites—Biology 1, 2, 10, Chemistry A1, Geology 1, 2.

*Lecture and laboratory hours to be arranged.*

Professor MacClement.

**BIOLOGY 18. ECONOMIC FUNGI.**

Class and laboratory studies of the fungi producing the more important plant diseases.

Prerequisites—Biology 1, 2, 10.

*Lecture, Thursday at 8. Laboratory, Tuesday and Thursday 2-4.*

Professor MacClement and Mr. White.

**BIOLOGY 20. TAXONOMY.**

The principles of classification applied to Algae, Fungi, Mosses, Ferns, Fern Allies, Flowering Plants. A laboratory course of six hours per week for honour credit. Hours to be arranged.

Professor MacClement.

**BIOLOGY 21. CANADIAN ZOOLOGY.**

The classification, distribution, life histories, habits and economic importance of types representing the Canadian fauna. The study of museum specimens of representatives of each group.

Prerequisite—Biology 1.

*Lectures, Tuesday and Thursday at 11. Laboratory, Friday 2-4.*  
Professor Klugh.

**BIOLOGY 22a. ELEMENTARY HISTOLOGY.**

The microscopic study of animal tissues.

Prerequisites—Biology 1 and 2.

*Lecture, Wednesday at 11. Laboratory, Tues. and Thurs. 2-4.*  
Professor Klugh.

**BIOLOGY 23b. ELEMENTARY ANATOMY.**

The microscopic study of the amoeba, paramoecium, euglena, vorticella and hydra, and the dissection of the starfish, clam, earthworm, locust, spider, frog, and a mammal.

Prerequisite—Biology 1 and 2.

*Lecture, Wednesday at 11. Laboratory, Tues. and Thurs. 2-4.*  
Professor Klugh.

**BIOLOGY 24a. ANIMAL ECOLOGY.**

The physical and biological factors of the environment, succession, convergence, formations, associations, and consocieties. Practical application of ecology.

*Lectures, Monday, Wednesday, and Friday at 10.*

Professor Klugh.

**BIOLOGY 25b. ANIMAL PSYCHOLOGY.**

The nervous systems, senses, and behavior of animals, and their psychological development.

Prerequisite—Biology 1, 2, 23b.

*Lectures, Monday, Wednesday, and Friday at 10.*

Professor Klugh.

**BIOLOGY 26. PHYSIOLOGY. Second year in Medical course.**

Study of the general principles of Physiology, and the physiological investigation of blood, circulation, respiration, muscle, and nervous system. The physiology of digestion, metabolism, excretions, and internal secretions.

Prerequisite—Biology 1 and 2 (or 3), 22a, 23b.

*For lectures and laboratory hours see Medical Calendar.*

Dr. G. S. Melvin.

**BIOLOGY 27. PHYSIOLOGY AND EMBRYOLOGY. Third year in Medical course.**

Advanced Physiology, and the Embryology of the pig and chick.

Prerequisites—Biology 1 and 2 (or 3), 22a, 23b, 26.

*For lectures and laboratory hours see Medical Calendar.*

Dr. G. S. Melvin.



**BIOLOGY 28. COMPARATIVE ANATOMY OF VERTEBRATES.**

A detailed study of the anatomy of the frog, bird, and mammal.

Prerequisites—Biology 1, 2, 22a, 23b.

*Laboratory, Tuesday, Wednesday and Thursday, 2-4.*

Professor Klugh.

**BIOLOGY 30. ECONOMIC ZOOLOGY.**

Either of the following divisions will constitute a full course:

- (i) Marine and fresh water biology with special reference to the fisheries.
- (ii) Economic Entomology.

Prerequisites—Biology 1, 2, 21, 23b, 24a.

One lecture and four laboratory hours per week to be arranged.

Professor Klugh.

**BIOLOGY 99.**

Honour students making Biology their main subject may select one of the following options as a reading or unassisted course:

**(a) EVOLUTION OF GENETICS.**

This is a reading and laboratory course on the theories of evolution and genetics.

Prerequisites—Biology 1 and 2. (Not offered in 1921-22).

**(b) ECONOMIC ZOOLOGY.**

This is a reading and laboratory course in the identification of animal forms and the qualities which make them important to mankind.

Prerequisites—Biology 1 and 2, 21, 23b, 24a. Professor Klugh.

**RESEARCH COURSE IN BIOLOGY**

This course is for students making some line of Biology their life work, as for example in the Departments of Fisheries or Forestry or Plant Pathology in the Civil Service. See outline of this course on page 67.

## BACTERIOLOGY

PROFESSOR—Guilford B. Reed, M.A., B.Sc., Ph.D.

## REGULATIONS

1. Students in a Pass course taking Biology as a Major may take as a part of the Biology prescription one to four half-courses in Bacteriology numbered 10 to 14.

2. Students taking Biology as an Honour subject may elect as a part of the Biology prescription one to four half-courses in Bacteriology numbered 10 to 14.

3. Students wishing to make a special study of Bacteriology are referred to the courses in General Biology, Biochemistry and Bacteriology.

## COURSES OF INSTRUCTION

## BACTERIOLOGY 10a.

An introductory course in general Bacteriology, including the structure and physiology of bacteria; fermentation and decomposition, especially in foods; disease and immunity.

Prerequisites: Biology 1, 2, 11, and Chemistry 1.

*Lectures, Tuesday and Thursday at 10.*

*Laboratory, Monday and Wednesday, 2 to 4.*

## BACTERIOLOGY 11b. REACTIONS PRODUCED BY BACTERIA.

*Hours to be arranged.*

## BACTERIOLOGY 12b. THE PATHOGENIC BACTERIA, a systematic study of the disease producing organisms; infection and immunity.

*Lectures, Tuesday and Thursday at 9.*

*Laboratory, Monday and Wednesday, 2 to 4.*

## BACTERIOLOGY 13a. THE MICROBIOLOGY OF FOODS AND WATER SUPPLIES.

*Hours to be arranged.*

## BACTERIOLOGY 14b. AGRICULTURAL BACTERIOLOGY.

(Not offered in 1921-22).

## BACTERIOLOGY 20. RESEARCH IN GENERAL PHYSIOLOGY AND BACTERIOLOGY.

## GEOLOGY

PROFESSOR—M. B. Baker, B.A., B.Sc., F.G.S.A.

ASSISTANT PROFESSOR—F. J. Alcock, B.A., Ph.D., F.G.S.A.

### REGULATIONS

1. Students taking Geology 1 who are not taking Mineralogy 1 must attend Mineralogy A one hour a week for the first term to become familiar with rock forming minerals. Mineralogy 1 is prerequisite to Geology 2 and 10. Mineralogy 2(i) is part of Geology 10.

2. For a Minor in Geology students will take Mineralogy 1 and Geology 1, 2, and 11.

3. For a Major in Geology students will take either the inorganic and economic side, or the organic paleontological side. In the first case they will select Mineralogy 1 and Geology 1, 2, 9 and 10; in the second case Mineralogy 1 and Geology 1, 2, 9 and 13.

4. For Honours in Geology, students will again select either the inorganic or the organic side and will take course 99 and from four to six courses from either of the following groups:

A. Mineralogy 1 and Geology 1, 2, 10, 13, and 14.

B. Mineralogy 1 and Geology 1, 2, 13, 18, and 19.

5. No extra-mural course will be offered in Geology during the summer of 1921. Both Geology 1 and Mineralogy 1 will be offered in the summer school of 1922. The extra-mural course in Geology 1 is offered as usual for the winter session of 1921-22.

#### *Text-books:*

Scott's *An Introduction to Geology* (Macmillan).

Salsbury's *Physiography* (Holt).

### COURSES OF INSTRUCTION

**GEOLOGY 1. INTRODUCTORY COURSE IN PHYSIOGRAPHY AND GENERAL GEOLOGY.**

The following topics indicate roughly the scope of the course: Forces operating on the earth's surface,—the atmospheric forces, streams, glaciers, waves, etc.; the land forms produced by these forces; volcanism; earth movements; structure of the earth's crust; mountain formation; kinds of rocks and their formation; fossils; outline of the history of the earth, including the evolution of its plant and animal life. In addition to those topics which are more particularly the province of Geology, consideration is given to the various types of topography and their method of formation,

the atmosphere, its temperature, moisture and circulation, storms, climate, ocean currents, tides, etc., and, as far as time will permit, their influence on the human race will be indicated. This course will prove valuable to students who contemplate teaching Physical Geography in our schools.

The lectures are illustrated by maps, models, lantern slides, and specimens.

LABORATORY WORK will consist of the examination of typical specimens of fossil plants and animals, and of hand specimens of the more common rocks, together with the field excursions, the expenses of which are covered by the laboratory fee.

*Text-book:* Norton, *Elements of Geology*.

*Monday, Wednesday, and Friday at 11. Professor Alcock.*

## GEOLOGY 2. STRUCTURAL AND PHYSIOLOGICAL GEOLOGY, AND THE GEOLOGY OF CANADA.

- (i) The principles of earth movements, deformation, faulting, mountain formation and volcanism are covered in a more general and more advanced way than in Geology 1.
- (ii) Advanced consideration of surface processes, action of winds, streams, waves, glaciers, etc., various types of marine and continental sedimentation, and the development of land forms, map reading and interpretation.
- (iii) In this course special attention will be given to stratigraphical Geology, and the distribution of the various rock formations in Canada. The topography as well as the structural make-up of the Dominion is studied. The climatic and economic differences of the various portions of Canada are explained.

*Monday, Wednesday, and Friday at 9. Professor Alcock.*

## GEOLOGY 10. ELEMENTARY PETROGRAPHY.

This course is essentially on igneous Geology and Petrography, and will consist of lectures and discussion on the geological occurrences of igneous rocks, the processes of crystallization from magmas, the forms assumed, the textures, and the metamorphic changes that are produced in the intrusive mass itself, and on its surroundings. The lectures will be illustrated by projections of thin sections of rocks, and will be supplemented by laboratory work on hand specimens. Students taking this course will include Mineralogy 2 (i) as part of the work.

*Text-books:*

Luquer, *Minerals in Rock Sections*.

Pirsson, *Rocks and Rock Minerals*.

*Tuesday and Thursday at 10. Professor Baker.*



## GEOLOGY 13. HISTORICAL GEOLOGY.

Continental evolution and geologic life development with special reference to North America.

*Text-book:* Schuchert, *Historical Geology*.

*Tuesday at 3 and Friday at 10.* Professor Alcock.

## GEOLOGY 14. ADVANCED PETROGRAPHY.

A course of lectures will be given on the microscopic characters and classifications of igneous rocks, and on their origin, geological form, and general field characters. The lecture work will be supplemented by assigned special reading and by laboratory work with both hand specimens and microscopic slides. Special attention will also be paid to the metamorphic rocks.

*Tuesday at 1 and 2.* Professor Baker.

## GEOLOGY 15. ECONOMIC GEOLOGY.

The work in this class is an illustration of the principles of ore deposition. For this purpose type deposits in the largest producing districts throughout the world are studied in some detail. It is of course impossible to treat of all products, but the basis of classification and the fundamental principles underlying economic deposits are studied with particular reference to iron, copper, nickel, zinc, lead, silver, gold, aluminum, peat, coal, gas, oil, salt, abrasive and refractory materials. A few lectures on building stone, and on clays and the manufacture of clay products will be given.

Within one hundred miles of Kingston a greater variety of economic minerals and ores is mined than in any similar area in Canada, and possibly in the world. Through the kindness of the managers, advanced students may visit the various mines and thus gain valuable information regarding economic Geology.

*Monday at 10, Tuesday and Wednesday at 11.* Professor Baker.

## GEOLOGY 17. FIELD AND LABORATORY GEOLOGY.

The laboratory exercises in this course are designed to illustrate by means of specimens, models, photographs, maps, and sections, the principal original and secondary structures of rocks; the origin and mode of occurrence of rocks in the earth's crust, their cycles of alteration and change, their interpretation and representation in geological surveys and maps.

The field work comprises observations upon the weathering of rocks, shore phenomena, glacial phenomena, igneous and sedimentary rocks, faulting, folds, joints, cleavage, schistosity. It gives practice in methods of surveying; in geological mapping, and construction of sections; in measuring the thickness of strata; and in determining the relative ages of geological structures. The preparation of a map to scale from actual field work done by the student is required.

Six working hours a week will be arranged to suit the class at the beginning of the fall term.

GEOLOGY 18. SYSTEMATIC PALEONTOLOGY.

A study of invertebrate and vertebrate fossils, their classification, identification, and distribution, both geologic and geographic.

*Text-book:* Shimer, *An Introduction to the Study of Fossils.*

*Lectures, Tuesday and Thursday at 11.*

*Two laboratory hours per week to be arranged to suit students' time-table.*

Professor Alcock.

GEOLOGY 19. STRATIGRAPHY.

The problems of sedimentation and the sedimentary rocks.

*Wednesday at 11, Thursday at 2.* Professor Alcock.

*Reference Book:* Grabau, *The Principles of Stratigraphy.*

GEOLOGY 9. Reading course in Inorganic Geology for Pass students.

GEOLOGY 99. Reading course in Organic Geology for Honour students.

## MINERALOGY

PROFESSOR—E. L. Bruce, B.Sc., M.A., Ph.D., F.G.S.A.

ASSISTANT PROFESSOR—F. J. Alcock, B.A., Ph.D., F.G.S.A.

## REGULATIONS

1. Students taking Mineralogy 1 must have matriculated in Chemistry or have passed in Chemistry 1 or take Chemistry 1 concurrently.

2. Students taking a Minor, a Major or Honours in Mineralogy must include among their courses, besides the prescribed courses in Mineralogy itself, such courses in Geology, Chemistry and Physics as are necessary to secure proper preparation and balance. The details should be arranged in consultation with the Professor. Some of the requirements regarding courses in Geology to be included are stated below.

3. Mineralogy 1, 2, and 11 must be taken in the order named and are prerequisite to all other courses in Mineralogy. The order in which the other courses are taken may be varied to suit the individual case. In special cases 2 and 11 may be taken concurrently.

4. For a Minor a student will take Mineralogy 1, 2, 11, and Geology 1. For a Major a student will take Mineralogy 1, 2, 9, 11, and Geology 1. For Honours a student will take course 99 and four to six courses from one of the following groups:

A. Mineralogy 1, 2, 11, 12, 15a and Geology 1.

B. Mineralogy 1, 2, 11, 13, 14, and Geology 1.

5. Students continuing courses begun under an old calendar should regard 1 as equivalent to Pass Mineralogy; 2 and 11 or 12 as equivalent to Preliminary Honours; and 13 and 14 equivalent to Final Honours.

6. Students in Mineralogy are expected to take part in the four or five field excursions which are made on Saturdays during October and November. The cost of the field work will not exceed \$5.00.

7. Each student in the department on making a deposit of \$10.00 is supplied with a locked cabinet containing about 150 mineral specimens.

## COURSES OF INSTRUCTION

## MINERALOGY A. PREPARATORY MINERALOGY.

A laboratory and demonstration class of one hour a week during the first term is given for students who are taking Geology without taking or having taken Mineralogy. It is designed to make students familiar with the common rock-forming minerals and ores in order to enable them properly to appreciate the work in Geology.

## MINERALOGY 1.

A course in Elementary Crystallography, Blowpipe Analysis and Descriptive and Determinative Mineralogy of about 100 common mineral species.

*Text-book: Ford, Dana's Manual of Mineralogy.*

*Lectures: Wednesday at 11, Tuesday 1-3. Professor Bruce.*

## MINERALOGY 2.

## (i) OPTICAL MINERALOGY.

## (ii) PHYSICAL MINERALOGY AND CRYSTALLOGRAPHY.

An advanced course in the character of crystals and crystal measurements.

*Lectures: Wednesday and Friday at 8.*

*Laboratory: Two hours a week, to be arranged.*

Professor Bruce.

## MINERALOGY 11. DESCRIPTIVE AND DETERMINATIVE MINERALOGY.

A course describing the properties, occurrence and uses of the more important minerals together with practical work in their determination.

*Lecture: Wednesday at 1.*

*Laboratory: Wednesday, 2-4. Dr. Alcock.*

## MINERALOGY 12. ADVANCED DESCRIPTIVE AND DETERMINATIVE MINERALOGY.

A course covering the rarer mineral species.

*Lectures and laboratory work: Friday, 1-3. Dr. Alcock.*

## MINERALOGY 13. MINERAL TECHNOLOGY.

A study of alloy minerals, abrasives, refractory materials, fertilizers, building stones, etc. This course deals chiefly with the occurrence and utilization of the non-metallic minerals.

*Lectures: Tuesday and Thursday at 9. Professor Bruce.*

## MINERALOGY 14. MINERALOGRAPHY.

The study of opaque minerals with the metallographic microscope. Paragenesis of ores.

*Lectures and Laboratory: Three hours per week, to be arranged.*

Professor Bruce.

## MINERALOGY 15a. ADVANCED CRYSTAL OPTICS.

Lectures and laboratory work on the optical properties of crystals including natural minerals, artificial products, etc.

*Lectures and Laboratory: Three hours per week, to be arranged.*

*First term. Professor Bruce.*



## MINERALOGY 16b. CHEMISTRY OF MINERALOGY.

A general survey of mineral density and of the processes involved in mineral deposition. A study of inversion phenomena, monotropy, enantiotropy, eutetics, solid solutions, etc., with their geological and technological significance.

*Three hours per week, lectures and reading to be arranged*

*Second term. Dr. Alcock.*

## MINERALOGY 9.

A laboratory and reading course for Pass students, involving an original investigation of some mineral or mineral product.

Professor Bruce and Dr. Alcock.

## MINERALOGY 99.

An advanced course similar to 9 for Honour students.

Professor Bruce and Dr. Alcock.

## GRADUATE COURSES

### I. REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS

A candidate for the degree of M.A. must have taken the degree of B.A. in some preceding academic year.

The amount and distribution of work for the degree of M.A. will be determined in each case by the Committee on Studies on the basis of the following general regulations:

1. A candidate for the degree of M.A. must ordinarily take advanced work approved by the Departments concerned in the two main subjects of his B.A. Course. With special permission, however, he may concentrate on one of his special subjects or he may count work in a third related subject if it can be shown to belong to a consistent plan of study.

2. The work prescribed may consist of one or both of the following:

(a) Regular lecture courses.

(b) Directed special studies, with reports, essays, and conferences.

*Note:* A thesis may be required or accepted as part of the work.

3. The work prescribed will consist of four Honour courses or equivalent for those who have taken the degree of B.A. with Honours, and five Honour courses or equivalent for those who have taken a Pass degree with first division in a total of at least three courses beyond courses 1 and 2 in the special subjects. Those who do not qualify under these conditions must repeat earlier work to bring up their standing.

4. The degree of M.A. will be conferred upon a student who, having satisfied the conditions mentioned above, makes at least sixty-six per cent. in each of the prescribed courses.

### II. REQUIREMENTS FOR THE DEGREE OF Ph.D.

1. Work for this degree shall be carried on in two or more departments. It shall consist of a Major subject, in connection with which a thesis shall be written, and one Minor subject or two Semi-minor subjects, in which the requirements of the examinations shall be of a less exacting character.

2. Candidates for this degree must comply with one of the following conditions:

(a) If they offer themselves for the degree of Ph.D. in any two of the Arts subjects, they must previously have taken the degree of M.A.

in these subjects, or must satisfy the Senate of their ability to proceed with the course.

(b) If they offer themselves for the degree of Ph.D. in one of the Arts subjects and either Old Testament Language and Literature or New Testament Language and Literature, they must have previously obtained the degree of M.A. or B.A. with first-class honours in the Arts subjects chosen, have completed their course in Theology, and have passed the examination in half of the course for B.D.

(c) If they offer themselves for the degree of Ph.D. in Old Testament Language and Literature and New Testament Language and Literature they must previously have taken an Arts degree and the degree of B.D.

3. The degree cannot be obtained in less than two years after the above conditions have been complied with. Upon the recommendation of the department concerned the Faculty of Arts may, for sufficient reasons, exempt graduates of this or another University from the one year's attendance requirement.

4. A candidate shall submit a thesis on some subject connected with the Major courses, embodying the results of original investigation. A copy of this thesis shall be submitted to the departments concerned not later than February 28 in the year of the examinations. On approval of the thesis the candidate shall deposit with the Librarian fifty printed copies, or give a guarantee that these shall be deposited not later than one year after the degree has been conferred.

Publication of the thesis in any reputable journal, or in the transactions of any learned society, fifty off-prints of which shall be duly deposited with the Librarian, will be accepted as an equivalent.

5. Candidates for this degree must make application through the Registrar to the Senate to be allowed to proceed with the course, stating the subjects they wish to offer, and must register either as intra- or extra-mural students each session in which work is taken. Extra-mural students in addition to the registration fee must pay a tutorial fee of \$10 a session for each subject.

6. The following conditions are laid down with regard to preliminary, interim, and final examinations:

(a) There shall be at least one external examiner in each course, for the Major subject and thesis.

(b) Preliminary qualifying examinations, when required, will be set by the professor in charge.

(c) Interim and partial examinations, to be held before the last year, may be set and conducted by the professor concerned in any course.

(d) Final examinations shall be conducted only during the ordinary sessional examinations and within the University.

All intending candidates should consult the head of the department concerned, who will be glad to give information and advice.

#### SUBJECTS OF STUDY FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

##### Latin

The Ph.D. course in Latin is a continuation of the Honours work, but is more specialized and involves a more detailed use of original authorities. Latin may be taken as either a Major or a Minor subject. Sections 3 and 4 are only for candidates taking Latin as a Major subject. A paper will be set on each part.

1. COMPOSITION.
2. TRANSLATION AT SIGHT.
3. ROMAN HISTORY from 133 B.C. to 117 A.D.
4. LATIN LITERATURE.
5. ONE OF THE FOLLOWING:
  - (a) A special period or department of Latin Literature studied in connection with original authorities.
  - (b) A special period or department of Roman History studied in connection with original authorities.
  - (c) Latin Palæography and Textual Criticism, with a special critical study of selected texts.
  - (d) Roman Archæology.
  - (e) The Italic Dialects and the History of the Latin Language.

##### Greek

Candidates for Ph.D. may offer Greek as a Minor or as a Semi-minor subject.

A Semi-minor course includes:

1. A DETAILED STUDY OF SELECTED TEXTS, namely, those prescribed in the Honour course, with additions.
2. A GENERAL KNOWLEDGE OF THE POLITICAL AND LITERARY HISTORY OF GREECE.
3. UNSEEN TRANSLATION AND GREEK PROSE COMPOSITION.

A Minor course includes the foregoing in a somewhat elaborate form, with the addition of:



1. A SURVEY OF ARCHÆOLOGY IN GREEK LANDS.

2. COMPARATIVE PHILOLOGY. For this part of the work such a manual as that of Giles is sufficient.

### English

In English only Minor and Semi-minor courses are offered. The Semi-minor consists of the work in section I, together with the work in either section II or section III, and is open only to those who have made seventy-five per cent. or over in the equivalent to Honour English. The Minor requires in addition to the above the specific study of a period or movement in literature as arranged with the department.

Candidates are required to have a reading knowledge of German and French.

### I

1. A MINUTE KNOWLEDGE OF ANGLO-SAXON GRAMMAR AND PHONOLOGY.

2. A CAREFUL STUDY OF *BÉOWULF*, with essays on three of the following topics:

- (a) A study of Old English Heroic Poetry based on *Béowulf*.
- (b) Literary Art in *Béowulf*.
- (c) The Heathen and the Christian Elements in *Béowulf*: their relation and significance.
- (d) *Béowulf* as a Representation of the Life and Beliefs of the Time.
- (e) Myth and History in *Béowulf*.
- (f) Style and Vocabulary as a Test of Authorship in Anglo-Saxon Poetry.

### II

A GENERAL STUDY OF CHAUCER and the relations which his work bears (1) to Old English poetry, (2) to the poetry of Northern France, (3) to Italian poetry. Candidates will write papers on two of the following subjects:—

- (a) *The Complaynte unto Pite* as a typical specimen of French Court Poetry, with attention to the conventional element and to the possible personal element.
- (b) Chaucer's handling of the octosyllabic couplet in the *Book of the Duchess*; its technical and artistic qualities.
- (c) The influence of Dante in Chaucer's *House of Fame*.

## III

## A SPECIAL STUDY OF ANY TWO OF THE FOLLOWING SUBJECTS:

1. Wordsworth, *Prelude*.
2. Carlyle, *Life of John Sterling*.
3. Any one of the following writers: Pater, Meredith, Hardy.

## History

The following courses are offered in History, four constituting a Major, three a Minor, and two a Semi-minor. For a Major section 1 is compulsory. The thesis may be chosen from any of the fields of study, but the presence of original material in the Canadian Archives and some of the greater American libraries makes the choice of American and Canadian themes preferable. When candidates have been accepted by the Senate, they should write at once to one of the professors in the department. They will then receive definite instructions.

For section 3 a knowledge of a foreign language, German, French, or Italian, is requisite, and certain books will be set in the particular language chosen.

1. THE EARLIER CONSTITUTIONAL HISTORY OF ENGLAND. Stubbs in his three volumes covers the ground; but more recent results must be studied in Maitland's constitutional volumes, especially *Domesday Book and Beyond*; in J. H. Round's *Feudal England*; and in Chadwick's *Origin of the English Nation*. In addition to a general knowledge of the whole period, students will be required to have a detailed knowledge of special topics, e.g. the Constitutional Documents of Henry II's reign; or Magna Carta, with McKechnie's *Magna Carta* as guide; or the Development of Parliament under Edward I. Knowledge of Latin is essential.

2. A SHORT PERIOD OF BRITISH HISTORY, to be selected in consultation with the Professor of Modern History, and to be studied from contemporary authorities. No recommendations are made, but the following are given as illustrations:

*The Reign of Henry VIII*, worked up from (a) calendars of state papers; (b) the Statutes of the Realm; (c) various social, political, or literary documents such as More's *Utopia* and his *Life* by Roper, Cavendish's *Wolsey*, Thomas Cromwell's *Letters*, Strype's writings on the reign.

*The Great Rebellion*, with Gardiner's volumes as guide, and the memoirs of the time, e.g. Clarendon's, Baillie's, Ludlow's, as material. Knowledge will be expected also of Milton's controversial writings, of religious writings like George Fox's autobiography, of the Letters of Oliver Cromwell, and of the chief constitutional documents of the time.

3. A PERIOD OF EUROPEAN HISTORY, or a subject equivalent to a period. If a period is taken, e.g., 1558-1598, the activities of all the great powers must be studied, and such minor matters as were connected with the great powers. If a subject is chosen, it must be such as these: the Florence of Savonarola and Machiavelli; the Sixteenth Century Seamen; the Jesuits in Europe; the development of the Modern German Constitution.

4. A PERIOD OF COLONIAL HISTORY, preferably Canadian, or a subject equivalent to a period. Candidates must not only know the literature of the period or subject, but will be expected to do research work among unpublished documents.

5. A PERIOD OF AMERICAN HISTORY, or a subject equivalent to a period. The period or subject may be either previous or subsequent to the American Revolution.

6. BRITISH INDIA. Mill's *History*, in its latest form, may be regarded as covering the ground, in conjunction with Malleson and Kaye's *History of the Mutiny*. Candidates must know the constitutional changes from the beginning. The following lives must be studied: Warren Hastings, Wellesley, Dalhousie, John Lawrence. Recent developments should be known at first hand.

### Mental and Moral Philosophy

#### I

Candidates who desire to obtain the degree of Ph.D. in Philosophy alone are allowed the following options which count as a combined Major and Minor course:

1. They may offer any *four* of the following books, ability to translate which is presumed:

Plato, *Republic*.

Aristotle, *Organon* (Selections of Oxford Press), *Metaphysics* (Selections), *De Anima*, *Nichomachean Ethics*, *Politics*.

Kant, *Kritik der reinen Vernunft*, *Kritik der praktischen Vernunft*, *Kritik der Urtheilskraft*.

Hegel, *Encyclopädie*, I and III; *Wissenschaft der Logik*, any two books; *Phänomenologie des Geistes*; *Philosophie des Rechts*; *Philosophie der Religion*.

2. They may offer any *two* of the above books, together with the works of any *one* of the following authors: Rousseau, Comte, Schopenhauer, Lotze, Hartmann, John Stuart Mill, Herbert Spencer, T. H. Green, Henry Sidgwick, Edward Caird, F. H. Bradley, or Bosanquet.

3. They may offer any *two* of the above books, together with *one* of the following sections:

- (a) The Principles of Logic. References: The logical treatises of Hegel, Mill, Jevons, Venn, Lotze, Sigwart, Bradley, Bosanquet, and Joseph.
- (b) The Principles of Psychology. References: The psychological works of James Mill, J. S. Mill, Bain, Wundt, Sully, Ladd, James, Adamson, Lotze, Ward, and Stout.
- (c) The Principles of Ethics. References: The ethical works of Plato, Aristotle, J. S. Mill, Bain, Sidgwick, Green, Bradley, Spencer, Stephen, Martineau, Caird, and Croce.
- (d) The Principles of Aesthetics. References: The aesthetic treatises of Aristotle, Lessing, Kant, Schiller, Hegel, Lotze, Schasler, Ruskin, and Croce.

4. They may offer any one of the authors mentioned above in Section 2, together with one of the sub-sections under 3.

## II

Candidates who combine a partial course in Philosophy with the work prescribed in another department may offer either (a) any *two* of the books mentioned above in I, 1; or (b) the works of any one of the authors mentioned in I, 2; or (c) one of the sub-sections in I, 3. Any of these options counts as one Major.

### Political and Economic Science

Candidates offering Political and Economic Science as their Major subject will be required to take work within five of the following groups of study; candidates choosing it as their Minor, within three groups. Where possible, the Canadian aspect of the problems considered will be especially stressed. Details of the reading and requirements in the various courses may be obtained from the professors in the department.

- 1. ECONOMIC THEORY: Scope and Method, Value and Distribution.
- 2. FINANCE: Money, Banking, Insurance, Corporations and Corporation Finance.
- 3. COMMERCE AND TRANSPORTATION: Economic History and Geography, Trade, Tariffs, Railroads.
- 4. PUBLIC FINANCE AND TAXATION; STATISTICS.
- 5. POLITICAL THEORY: English and American Theories since the seventeenth century.
- 6. COMPARATIVE GOVERNMENT, NATIONAL AND MUNICIPAL: Structure and Working



7. JURISPRUDENCE: Constitutional Law, International Law, and Diplomacy.

8. ANTHROPOLOGY AND SOCIAL ORIGINS.

9. SOCIAL PROBLEMS; THE LABOUR MOVEMENT; SOCIALISM.

### Old and New Testament Language and Literature

Candidates must take note that the amount and quality of the work demanded for this degree will, in the judgment of the Faculty, require three years' post-graduate work at the University, or six years' extra-mural work.

Candidates are required to present a thesis on a subject chosen in their Major course and approved by the professors of the department.

### OLD TESTAMENT LANGUAGE AND LITERATURE

The candidate will be required to show to the examiners, by means of critical essays and examination papers, that he possesses comprehensive and accurate knowledge in the following departments:

#### *I.—Major Course*

1. LANGUAGES: Hebrew and Aramaic. Unseen Translation. Hebrew Composition.

2. HISTORY: the history of Israel to the year 141 B.C. Outline of the history of Egypt and Babylon, in so far as these bear on the history of Israel.

3. LITERATURE: the contents and character of the books of the Old Testament and of the following books:—*Ecclesiasticus*; *Maccabees*, I and II; *Esdras*, I and II; *Baruch*; *Tobit*; the additions to *Daniel*.

4. OLD TESTAMENT THEOLOGY OR HISTORY OF THE HEBREW RELIGION down to 141 B.C.

5. CRITICISM, TEXTUAL, LITERARY, AND HISTORICAL. In this department papers will be set on books, or portions of books, representing all classes of Hebrew Literature, historical, poetic, prophetic, etc. The quantity of this work will be arranged with each candidate after consultation with the professors involved in his course. A list of books and suggestions as to methods of work may be had on application to Professor Jordan.

#### *II.—Minor Course*

1. HISTORY: the history of Israel to the year 141 B.C. Outline of the history of Egypt and Babylon, in so far as these bear on the history of Israel. (Two papers.)

2. LITERATURE: the contents and character of the books of the Old Testament and of the following books:—*Ecclesiasticus*; *Maccabees*, I and II; *Esdras*, I and II; *Baruch*; *Tobit*; the additions to *Daniel*. (Two papers.)

3. OLD TESTAMENT THEOLOGY OR HISTORY OF THE HEBREW RELIGION in the post-exilic period. (One paper.)

4. CRITICISM, TEXTUAL, LITERARY, AND HISTORICAL. In this department papers will be set on books, or portions of books, representing all classes of Hebrew Literature, historical, poetic, prophetic, etc. In quantity about fifteen chapters of Hebrew will be required. (Three papers.) The assignment of this work will be arranged with each candidate after consultation with the head of the Old Testament department.

#### NEW TESTAMENT LANGUAGE AND LITERATURE

(For a Minor omit all marked with an asterisk.)

#### 1. THE LANGUAGE OF THE GREEK NEW TESTAMENT.

- (a) A knowledge of the characteristic differences between classical Greek and the κοινή or Greek of the New Testament.

Books to be consulted:

\*Blass, *Grammar of the Greek New Testament*.

Moulton, *Grammar of the Greek New Testament*, Vol. I.

Deissman, *Bible Studies*, English edition.

- \*(b) Translations of selections from the Papyri of B.C. 200-150 A.D. The Tebtunis, Oxyrhynchus, Amherst, Grenfell and Hunt *Greek Papyri* may be consulted in the Library. (Two papers for Major; one for Minor.)

2. HISTORY: Jewish and General History from the time of Alexander the Great to the end of the second century. (Three papers for Major; one for Minor.)

#### 3. LITERATURE:

\**Book of Daniel*.

*The Ethiopic Book of Enoch*, edited and translated by Charles.

*Apocalypse of Baruch*, edited by Charles.

*The Wisdom of Solomon, The Apocryphal Acts and Apocryphal Gospel*, edited by Pick.

*Psalms of Solomon*, edited by Ryle and James.

R. H. Charles, *Critical History of Doctrine of Future Life in Israel, Judaism and Christianity*.

\*Schurer, *Jewish People in the time of Jesus Christ*, Div. II, Vol. III.

James Drummond, *Philo-Judaeus or the Alexandrian Philosophy*.  
(Three papers for Major; two for Minor.)

4. THEOLOGY OF THE NEW TESTAMENT AND HISTORY OF THE APOSTOLIC AGE.

Stevens, *New Testament Theology*.

\*Pfleiderer, *Primitive Christianity*, Vols. I and III (Eng. trans.).

\*Weizsäcker, *The Apostolic Age*.

McGiffert, *The Apostolic Age*.

(Four papers for Major; two for Minor.)

5. CRITICISM AND EXEGESIS OF THE GOSPEL ACCORDING TO JOHN,\* GALATIANS, EPHESIANS, PHILIPPIANS, COLOSSIANS, HEBREWS.\* The Synoptic Problem\* and the Johannine question.\* (Four papers for Major; two for Minor.)

Reference books:

Burkitt, *Gospel History and its Transmission*.

Stanton, *The Gospels as Historical Documents*, Vol. II.

*Oxford Essays on the Synoptic Problem*.

Moffatt, *Introduction to the New Testament*.

Drummond, *Character and Authorship of the Fourth Gospel*.

Bacon, *Introduction to the New Testament*.

Expositor's Greek Testament Commentary on John, Galatians, Ephesians, Hebrews, Philippians, Colossians.

Armitage Robinson, *Commentary on Ephesians*.

International Critical Commentary on Galatians, Ephesians, Philippians, Colossians.

Kenyon, *Textual Criticism*. (A knowledge of the history of New Testament Textual Criticism is expected.)

# DEGREES, MEDALS, SCHOLARSHIPS, AND PRIZES, 1920

## DEGREES

### HONORARY DEGREES

#### Degree of LL.D.

James Brebner .....	Toronto, Ont.
Hon. E. C. Drury .....	Toronto, Ont.
Dr. E. F. Scott .....	New York, N.Y.
Seager Wheeler .....	Rosthern, Sask.

#### Degree of D.D.

Rev. Colin G. Young .....	Saskatoon, Sask.
Rev. Thos. Eakin .....	Toronto, Ont.

### DEGREES BY EXAMINATION

#### Degree of M.A.

Sarah F. Barry, B.A. ....	Ottawa, Ont.
Winnifred I. Buchanan, B.A. ....	Blenheim, Ont.
H. E. Cavell, B.A. ....	Toronto, Ont.
Lucile Corbett, B.A. ....	Prescott, Ont.
Bessie E. Foreman, B.A. ....	Granton, Ont.
A. L. Greenlees, B.A. ....	Kingston, Ont.
J. E. Hawley, B.A. ....	Kingston, Ont.
Campbell Innes, B.A. ....	Lloydminster, Sask.
H. R. James, B.A. ....	Ottawa, Ont.
Grace H. Jeffrey, B.A. ....	Ottawa, Ont.
G. E. Johnson, B.A. ....	Straffordville, Ont.
W. T. Medcof, B.A. ....	Hartington, Ont.
Sarah Moore, B.A. ....	Belmont, Ont.
Isabella McDougall, B.A. ....	Wingham, Ont.
Herbert McIntosh, B.A. ....	Russell, Man.
H. A. McLeod, B.A. ....	Toronto, Ont.
H. G. Rose, B.A. ....	Ottawa, Ont.
J. R. Sheppard, B.A. ....	Kitchener, Ont.
W. H. Wynne, B.A. ....	London, England.

#### Degree of B.A. (with Honours)

Craig, Mary B. (English and History) ....	Cornwall, Ont.
Fell, Jean (English and History) .....	Gore Bay, Ont.
Greig, Janet T. (French and English) ....	Allan's Corners, Que.
Haltrecht, S. B. (History and Political Science) .....	Montreal, Que.
Libby, Helen M. (French and German) ....	Portsmouth, N.H.
Morrow, J. H. (Latin and Greek) .....	Bath, Ont.
Sangster, Edith (English and History) ....	Lancaster, Ont.
Taylor, Mary M. (History and Political Science) .....	Kingston, Ont.
Thomas, H. M. (History and Political Science) .....	Toronto, Ont.
Torrance, F. W. (English and Political Science) .....	Kingston, Ont.



## Degree of B.A. (Pass)

Adamson, J. F. ....	Hamilton Beach, Ont.
Allison, A. E. ....	Vankleek Hill, Ont.
Arrol, E. B. ....	Glasgow, Scotland.
Aylesworth, J. B. ....	Newburgh, Ont.
Barlow, H. C. ....	Belleville, Ont.
Baugh, F. H. C. ....	Bredenburg, Sask.
Beatty, W. A. ....	Radville, Sask.
Brown, R. G. ....	Mallorytown, Ont.
Cameron, Jean B. ....	Carleton Place, Ont.
Cameron, Marguerite A. ....	Carleton Place, Ont.
Cameron, Myrtle W. L. ....	Toronto, Ont.
Campbell, Ella R. ....	Vernon, Ont.
Clement, W. J. ....	Penticton, B.C.
Clendinnen, Margaret E. ....	Ottawa, Ont.
Cliffe, O. D. ....	Sault Ste. Marie, Ont.
Coon, H. A. ....	Edmonton, Alta.
Coulson, J. G. ....	Huronville, Ont.
Craig, H. A. ....	Smith's Falls, Ont.
Cummiford, L. ....	Windsor, Ont.
Darling, J. W. ....	Lake Opinicon, Ont.
Davidson, R. G. ....	Rossmore, Ont.
Dempsey, E. J. ....	Stratford, Ont.
Dick, T. M. ....	Montreal, Que.
Dickson, Frank ....	Brantford, Ont.
Dickson, Helen M. ....	Toronto, Ont.
Dickson, J. S. ....	Rouleau, Sask.
Donaldson, A. ....	Vancouver, B.C.
Ellis, Marjorie M. ....	Kingston, Ont.
England, B. I. ....	Inkerman, Ont.
Fair, Marjorie W. ....	Kingston, Ont.
Finlay, Edgar H. ....	Fraserville, Ont.
Friedgut, A. H. ....	Regina, Sask.
Gardiner, A. B. ....	Thamesville, Ont.
Gauley, Gwendolyn B. ....	Vars, Ont.
Govan, Jean ....	Williamstown, Ont.
Hambly, Ila M. ....	Napanee, Ont.
Hamill, R. W. ....	Whitewood, Sask.
Hamm, Mary ....	Bath, Ont.
Hendry, E. D. ....	Cornwall, Ont.
Hind, Edith J. ....	Hagersville, Ont.
Holland, Catherine N. ....	Westville, N.S.
Houghton, C. W. ....	Newton Robinson, Ont.
Hunt, George E. ....	Melville, Sask.
Jacques, A. G. ....	London, Ont.
Johnson, F. Des B. ....	Calgary, Alta.
Kelley, Irene M. ....	Ottawa, Ont.
Langford, E. W. ....	Peterboro, Ont.
Livingstone, Lydia M. ....	Maynooth, Ont.
Madill, R. G. ....	Athens, Ont.
Madole, Maysie H. ....	Napanee, Ont.
Marshall, George E. ....	Washago, Ont.
May, Gladys ....	Ottawa, Ont.
Meek, E. S. ....	Lumby, B.C.
Miller, H. M. ....	Rodney, Ont.
Minnes, Veta K. ....	Kingston, Ont.
Morris, S. O. ....	Athens, Ont.

Muir, Peter	Glenannan, Ont.
Murray, J. L.	Delta, Ont.
McArton, Margaret H.	Carleton Place, Ont.
McClelland, Marion D.	Kingston, Ont.
McCollom, Irvine	Regina, Sask.
MacInnis, J. A.	Fernie, B.C.
MacIntosh, J. F. A.	Alexandria, Ont.
McKay, William	Toronto, Ont.
McKenzie, Marjorie	Kingston, Ont.
McKerracher, L. G.	Fallbrook, Ont.
MacKinnon, J. W.	Kingston, Ont.
MacLachlan, J. K.	Kenmore, Ont.
McLean, Roberta	Cowansville, Que.
McPhee, N. C.	Vankleek Hill, Ont.
MacTavish, D. K.	Ottawa, Ont.
Nicholas, A. P.	Kingston, Ont.
Norman, Clara H.	Kincardine, Ont.
Norris, J. T.	Markham, Ont.
Oates, T. W.	London, Ont.
Patterson, N. D.	Boularderie West, N.S.
Pixley, G. S.	Harrowsmith, Ont.
Pound, George S.	Belleville, Ont.
Prentice, J. S.	Cawston, B.C.
Quinn, Eleanor M.	Kingston, Ont.
Rabb, K. S.	Perth, Ont.
Rorke, Luella M.	Tokyo, Japan.
Saulter, Madeline	Ottawa, Ont.
Saunders, Alice I.	Smith's Falls, Ont.
Scanlan, J. V.	Walkerton, Ont.
Scott, A. R.	Burketon, Ont.
Sexton, Gladys S.	Deloraine, Man.
Sharp, Ruth D.	Haileybury, Ont.
Shortt, Mary L.	Ottawa, Ont.
Shortt, W. R.	Toronto, Ont.
Sinclair, D. J.	Stayner, Ont.
Smyth, J. H.	Kitchener, Ont.
Steele, W. S.	Alliston, Ont.
Steinberg, Glenn	Brinston, Ont.
Stinson, Albert	Kingston, Ont.
Stothers, J. C.	Toronto, Ont.
Sutherland, Stella H.	Hanley, Sask.
Sutherland, W. A.	Scotsburn, N.S.
Tamblyn, W. J.	Toronto, Ont.
Taylor, K. E.	Kingston, Ont.
Thompson, Helen I.	Warkworth, Ont.
Vallentyne, H. J.	Toronto, Ont.
Walsh, Bessie G.	Kingston, Ont.
Wert, B. H.	Avonmore, Ont.
White, Lloyd	Arnprior, Ont.
Wightman, Keith St. C.	Peterboro, Ont.
Windrum, Beatrice	Lindsay, Ont.
Young, Mabel A.	Mansonville, Que.
Zeron, J. E.	Morrisburg, Ont.

## Degree of D.Paed.

J. H. Bingay, M.A.	Glace Bay, N.S.
John S. Huff, B.A.	Regina, Sask.

## Degree of B.Paed.

William E. Hay, B.A. ....	Medicine Hat, Alta.
William M. Shurtleff, B.A. ....	Kingston, Ont.
C. B. Edwards, B.A. ....	London, Ont.

## Degree of B.D.

R. M. McMullen, B.A. ....	Dunsford, Ont.
John McNab, B.A. ....	Kingston, Ont.
John L. Rose, B.A. ....	Pinkham, Sask.

## MEDALS

Medal in Latin .....	J. H. Morrow, B.A., Bath, Ont.
Medal in Greek .....	Bessie E. Foreman, M.A., Granton, Ont.
Medal in French .....	Janet T. Greig, B.A., Allan's Corners, Que.
Medal in English .....	F. W. Torrance, B.A., Kingston, Ont.
Medal in History .....	H. M. Thomas, B.A., Toronto, Ont.
Medal in Political and Economic Science .....	W. H. Wynne, M.A., London, End- land.
Medal in Moral Philosophy .....	H. R. James, M.A., Ottawa, Ont.
Medal in Mathematics .....	Grace H. Jeffrey, M.A., Ottawa, Ont.
Medal in Chemistry .....	John R. Sheppard, M.A., Kitchener, Ont.
Medal in Biology .....	Isabella McDougall, M.A., Wingham, Ont.
Medal in Geology .....	J. E. Hawley, M.A., Kingston, Ont.
Medal in German .....	Sarah F. Barry, M.A., Ottawa, Ont.

## SCHOLARSHIPS AND PRIZES

The Andrew Haydon Scholarship in Colonial History .....	\$50
R. O. Campney, Picton, Ont.	
The W. M. O. Lochead Scholarship in Political Science.....	\$50
R. O. Campney, Picton, Ont.	
Agnes McKercher, Wroxeter, Ont.	Equal
The N. F. Dupuis Scholarship in Mathematics.....	\$60
E. C. Gill, Kingston, Ont.	
D. L. Strachan, Hanover, Ont.	Equal
The Maclellan Scholarship in Greek .....	\$25
Isabel Sinclair, Carleton Place, Ont.	
Gowan Foundation No. I .....	\$25
S. B. Haltrecht, B.A., Montreal, Que.	
Gowan Foundation No. II .....	\$25
Isabella McDougall, M.A., Wingham, Ont.	
Gowan Foundation No. III .....	Books
J. H. Smyth, B.A., Kitchener, Ont.	
V. K. Greer Prize in Mathematics .....	Books
Edith Tuttle, Tweed, Ont.	
H. B. Vincent, Picton, Ont.	Equal
James C. Rogers Prize in English .....	Books
Edith Tuttle, Tweed, Ont.	
Professor's Prize in French 2 .....	Books
Mildred Hallett, Haileybury, Ont.	
Professor's Prize in Spanish 2 .....	Books
Mildred Hallett, Haileybury, Ont.	
The Alexander Laird Prize in English 1 .....	\$50
Margaret Porteous, Ottawa, Ont.	



## INDEX

	Page
Academic Year .....	5
Administration, Officers of .....	16
Admission to the Faculty of Arts .....	33
Anglo-Saxon, Instruction in .....	99
Astronomy, Instruction in .....	122
Athletics, Facilities for .....	28
Attendance .....	38, 54
B.A., Courses of Study for .....	58, 60
Banking, Courses in .....	68
Bacteriology, Instruction in .....	145
Biochemistry, Research in .....	67
Biological Laboratories .....	27
Biology, Instruction in .....	139
Boarding Houses .....	31
Botanical Laboratories .....	27
Botany, Field Work in .....	28
Instruction in .....	139
Calendar .....	7
Centres for Examinations .....	42
Chancellor .....	16
Chemical Laboratories .....	27
Chemistry, Instruction in .....	131
Church, Attendance at .....	32
Classes, Attendance at .....	54
Honour .....	60
Pass .....	60
Preparatory .....	55
Regulations regarding .....	54
Combined Courses .....	69, 70
Commerce and Administration, Instruction in .....	68
Commercial Specialist .....	66
Council, University .....	13, 18
Courses of Study .....	58, 153
for B.A. ....	58
arranged with the Ontario Department of Education....	66
for B.A. and M.D. ....	69
for B.A. and B.Sc. ....	70
for M.A. ....	153
for Ph.D. ....	154
Specialists' .....	66
Synopsis of .....	60
Dean of Women .....	31
Degrees (see also Courses of Study) .....	29
conferred in 1920 .....	163
Doctor of Divinity .....	29
Laws .....	29
Philosophy .....	29, 154
Science .....	29
Economics, Instruction in .....	111
Education, Ontario Department of, Relation to .....	30, 66
English, Instruction in .....	98
English Universities, Relation to .....	30
Equipment .....	27

	Page
Examinations, January, April, September .....	55
Equivalent to Matriculation .....	34
Extra-Mural .....	41
January .....	55
Regulations regarding .....	55
Exhibition of 1851 .....	50
Expenses .....	31
Extension Lectures .....	30
Extra-mural Work, regulations regarding .....	37
Faculty Boards .....	15
Fees .....	45
Fellowships, Arts Research .....	51
Field Work, Facilities for .....	28
French, Instruction in .....	89
Gaelic, Scholarship in .....	48
General Information .....	29
General Regulations .....	54
General Students .....	54
Geology, Field Work in .....	28
Instruction in .....	146
German, Instruction in .....	82
Government and Administration .....	13
Graduate Courses .....	153
Greek, Instruction in .....	76
Gymnasium .....	28
Hebrew, Instruction in .....	79
History, Instruction in .....	104
History of the University .....	10
Honorary Degrees .....	29
Honour Courses .....	60
Matriculation .....	33
Hoods .....	29
Information, General .....	29
Instruction, Officers of .....	21
Italian, Instruction in .....	94
Laboratories .....	27
Latin, Instruction in .....	72
Librarian .....	26
Library .....	27
Curators of the .....	26
M.A. .....	153
Mathematics, Instruction in .....	122
Matriculation .....	33
Medals .....	53
Mineralogy, Instruction in .....	150
Museums .....	27
Observatory .....	28
Pass Courses .....	60
Percentages required .....	57
Ph.D. Courses .....	154
Philosophy, Instruction in .....	119
Physical Laboratories .....	27
Physical Welfare of Students .....	31
Physics, Instruction in .....	126
Political and Economic Science, Instruction in .....	111

	Page
Preparatory Courses .....	55
Principal .....	16
Prizes .....	51
Professors .....	21
Rector .....	16
Registrar .....	16
Registration .....	32
Regulations regarding Courses .....	54
regarding Examinations .....	55
regarding Extra-mural work .....	37
Regulations, General .....	54
Relation to Other Institutions .....	30
Research Courses .....	67
Residence Requirements .....	38
Rhodes Scholarship .....	49
Romance Languages, Instruction in .....	89
Scandinavian, Instruction in .....	82
Scholarships .....	47
in Arts .....	47
Matriculation .....	47
Rhodes .....	49
Science Research .....	50
Arts Research .....	51
Semitic Languages, Instruction in .....	79
Senate .....	14, 19
Sequence of Courses .....	63
Skating Rink .....	28
Spanish, Instruction in .....	94
Specialists' Courses .....	66
Standing, Determination of .....	57
Subjects of Study .....	72
Summer School .....	43
Supplemental Examinations in Arts .....	55
Time-table for Classes .....	8
Trustees .....	13, 16
Tutors .....	25
University Council .....	13, 18
History of the .....	10
Vice-Principal .....	16
Zoology, Instruction in .....	139









